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<213> Homo sapiens

<400> 4893

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<213> Homo sapiens

<400> 4894

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960

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<210> 4902

<211> 184

<212> PRT

<213> Homo sapiens

<400> 4902

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Tyr	Val	Gly	Lys	Thr	Ser	Leu	Val	Glu	Arg	Tyr	Val	His	Asp	Arg	Phe
		20						25				30			
Leu	Val	Gly	Pro	Tyr	Gln	Asn	Thr	Ile	Gly	Ala	Ala	Phe	Val	Ala	Lys
		35					40					45			
Val	Met	Ser	Val	Gly	Asp	Arg	Thr	Val	Thr	Leu	Gly	Ile	Trp	Asp	Thr
	50				55					60					
Ala	Gly	Ser	Glu	Arg	Tyr	Glu	Ala	Met	Ser	Arg	Ile	Tyr	Tyr	Arg	Gly
65				70					75					80	
Ala	Lys	Ala	Ala	Ile	Val	Cys	Tyr	Asp	Leu	Thr	Asp	Ser	Ser	Ser	Phe
			85					90						95	
Glu	Arg	Ala	Lys	Phe	Trp	Val	Lys	Glu	Leu	Arg	Ser	Leu	Glu	Glu	Gly
		100						105				110			
Cys	Gln	Ile	Tyr	Leu	Cys	Gly	Thr	Lys	Ser	Asp	Leu	Leu	Glu	Glu	Asp
	115						120				125				
Arg	Arg	Arg	Arg	Arg	Val	Asp	Phe	His	Asp	Val	Gln	Asp	Tyr	Ala	Asp
	130					135					140				
Ser	Ser	Cys	Ser	Ser	Ala	Leu	Trp	Gly	Val	Gly	Val	Cys	Gly	Cys	Leu
145					150					155					160
Gly	Gly	Ser	Lys	Lys	Ile	Gly	Thr	Ala	Leu	Ala	Ala	Arg	Ala	Arg	Cys
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<210> 4903

<211> 1064

<212> DNA

<213> Homo sapiens

<400> 4903

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 180
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 tccaggaaga aggttccgca agaaccgtgg gcgacagtta tggagaagcg tctgcaggag
 300
 gctcagctgt acaaggagga aggggaaccag cgctaccggg aagggaagta ccgagatgct
 360
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 420
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 480
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 540
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 600
 aatgccaaag ccttgatcgc ggccggagtg gcctttttcc atctgcagga ctatgaccag
 660
 gcccgccact acctcctggc tgccgtgaat aggcagccta aagatgccaa cgtccggcgg
 720
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 780
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 840
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 900
 acccaggttg atttttgttt ctagtctctg acaaacttca ctacttagac agtctgagtc
 960
 tttttctgtc tatccatctg tttatttcta tacctttcaa tacatgttat tggtgcagat
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 1064

<210> 4904

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4904

Cys Trp Ala Ser Leu Phe Pro His Pro Phe Pro Tyr Tyr Leu Pro Ala
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 20 25 30
 Asn Lys Gln Thr Ala Val Pro Val Gly Gly Leu Ser Arg Lys Lys Val
 35 40 45
 Pro Gln Glu Pro Trp Ala Thr Val Met Glu Lys Arg Leu Gln Glu Ala


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      50              55              60
Gln Leu Tyr Lys Glu Glu Gly Asn Gln Arg Tyr Arg Glu Gly Lys Tyr
65              70              75              80
Arg Asp Ala Val Ser Arg Tyr His Arg Ala Leu Leu Gln Leu Arg Gly
      85              90              95
Leu Asp Pro Xaa Ser Ala Leu Ser Val Thr
      100              105

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<210> 4905
 <211> 615
 <212> DNA
 <213> Homo sapiens

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<400> 4905
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180
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240
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420
accacaatcc caccgaccc actcttctcc cgctgcccc tgctcgccag gccccggggc
480
tcgccgcct ctgcctggt gctggccttt ggcgggaacc ccctgcactg caactgcgag
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600
gctctgggcg gccgc
615

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<210> 4906
 <211> 144
 <212> PRT
 <213> Homo sapiens

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<400> 4906
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Cys Ala Glu Thr Leu Glu Asp Leu Asp Leu Ser Tyr Asn Asn Leu Glu
      20              25              30
Gln Leu Pro Trp Glu Ala Leu Gly Arg Leu Gly Asn Val Asn Thr Leu
      35              40              45
Gly Leu Asp His Asn Leu Leu Ala Ser Val Pro Ala Gly Ala Phe Ser
      50              55              60
Arg Leu His Lys Leu Ala Arg Leu Asp Met Thr Ser Asn Arg Leu Thr
65              70              75              80
Thr Ile Pro Pro Asp Pro Leu Phe Ser Arg Leu Pro Leu Leu Ala Arg

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	85		90		95										
Pro	Arg	Gly	Ser	Pro	Ala	Ser	Ala	Leu	Val	Leu	Ala	Phe	Gly	Gly	Asn
		100						105					110		
Pro	Leu	His	Cys	Asn	Cys	Glu	Leu	Val	Trp	Leu	Arg	Arg	Leu	Ala	Arg
		115					120					125			
Glu	Asp	Asp	Leu	Glu	Ala	Cys	Ala	Ser	Pro	Pro	Ala	Leu	Gly	Gly	Arg
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<210> 4907

<211> 1748

<212> DNA

<213> Homo sapiens

<400> 4907

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120
gtggccagca gctggccccg tctcttctgc cccaacagct gtatccacag gttgtgaggc
180
gggaacgact gttctgtaac ccctacaacg gagcctggca ggaaggaaat cacctaaaaa
240
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360
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720
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1200

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<210> 4908

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4908

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Pro	Tyr	Pro	Cys	Pro	His	Gly	Asp	Arg	Leu	Leu	Pro	Pro	Ser	Arg	Pro
			20					25					30		
Leu	Pro	Ala	Gly	Pro	Ala	Ser	Ala	Phe	Pro	Pro	Ala	Glu	Arg	Ser	Arg
			35				40					45			
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<210> 4909

<211> 1960

<212> DNA

<213> Homo sapiens

<400> 4909

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1920
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
1960

<210> 4910
 <211> 423
 <212> PRT
 <213> Homo sapiens

<400> 4910
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 Phe Met Pro Ile Leu Met Glu Lys Glu Glu Glu Gly Met Leu Ser Pro
 35 40 45
 Ile Leu Ala His Gly Gly Val Arg Phe Met Trp Ile Lys His Asn Asn
 50 55 60
 Leu Tyr Leu Val Ala Thr Ser Lys Lys Asn Ala Cys Val Ser Leu Val
 65 70 75 80
 Phe Ser Phe Leu Tyr Lys Val Val Gln Val Phe Ser Glu Tyr Phe Lys
 85 90 95
 Glu Leu Glu Glu Glu Ser Ile Arg Asp Asn Phe Val Ile Ile Tyr Glu
 100 105 110
 Leu Leu Asp Glu Leu Met Asp Phe Gly Phe Pro Gln Thr Thr Asp Ser
 115 120 125
 Lys Ile Leu Gln Glu Tyr Ile Thr Gln Gln Ser Asn Lys Leu Glu Thr
 130 135 140
 Gly Lys Ser Arg Val Pro Pro Thr Val Thr Asn Ala Val Ser Trp Arg
 145 150 155 160
 Ser Glu Gly Ile Lys Tyr Lys Lys Asn Glu Val Phe Ile Asp Val Ile
 165 170 175
 Glu Ser Val Asn Leu Leu Val Asn Ala Asn Gly Ser Val Leu Leu Ser
 180 185 190
 Glu Ile Val Gly Thr Ile Lys Met Arg Val Phe Leu Ser Gly Met Pro
 195 200 205
 Glu Leu Arg Leu Gly Leu Asn Asp Lys Val Leu Phe Asp Asn Thr Gly
 210 215 220
 Arg Gly Lys Ser Lys Ser Val Glu Leu Glu Asp Val Lys Phe His Gln
 225 230 235 240
 Cys Val Arg Leu Ser Arg Phe Glu Asn Asp Arg Thr Ile Ser Phe Ile
 245 250 255
 Pro Pro Asp Gly Glu Phe Glu Leu Met Ser Tyr Arg Leu Asn Thr His
 260 265 270
 Val Lys Pro Leu Ile Trp Ile Glu Ser Val Ile Glu Lys Phe Ser His
 275 280 285
 Ser Arg Ile Glu Tyr Met Val Lys Ala Lys Gly Gln Phe Lys Lys Gln
 290 295 300
 Ser Val Ala Asn Gly Val Glu Ile Ser Val Pro Val Pro Ser Asp Ala
 305 310 315 320
 Asp Ser Pro Arg Phe Lys Thr Ser Val Gly Ser Ala Lys Tyr Val Pro
 325 330 335
 Glu Arg Asn Val Val Ile Trp Ser Ile Lys Ser Phe Pro Gly Gly Lys
 340 345 350
 Glu Tyr Leu Met Arg Ala His Phe Gly Leu Pro Ser Val Glu Lys Glu
 355 360 365
 Glu Val Glu Gly Arg Pro Pro Ile Gly Val Lys Phe Glu Ile Pro Tyr

370		375		380
Phe Thr Val Ser Gly Ile Gln Val Arg Tyr Met Lys Ile Ile Glu Lys				
385	390		395	400
Ser Gly Tyr Gln Ala Leu Pro Trp Val Arg Tyr Ile Thr Gln Ser Gly				
	405	410		415
Asp Tyr Gln Leu Arg Thr Ser				
420				

<210> 4911
 <211> 1862
 <212> DNA
 <213> Homo sapiens

<400> 4911
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 420
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 aatgtgaaca tgaagacca caaccaagat gaggagacgc ccttgcacac ggctgcccac
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 1200

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 1860
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 1862

<210> 4912

<211> 453

<212> PRT

<213> Homo sapiens

<400> 4912

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		20						25					30		
Leu	Lys	Ala	Ile	Leu	Ile	Gln	Arg	Gln	Ile	Asp	Val	Asp	Thr	Val	Phe
		35				40						45			
Glu	Val	Glu	Asp	Glu	Asn	Met	Val	Leu	Ala	Ser	Tyr	Lys	Gln	Gly	Tyr
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Trp	Leu	Pro	Ser	Tyr	Lys	Leu	Lys	Ser	Ser	Trp	Ala	Thr	Gly	Leu	His
65				70					75					80	
Leu	Ser	Val	Leu	Phe	Gly	His	Val	Glu	Cys	Leu	Leu	Val	Leu	Leu	Asp
			85						90					95	
His	Asn	Ala	Thr	Ile	Asn	Cys	Arg	Pro	Asn	Gly	Lys	Thr	Pro	Leu	His
		100						105					110		
Val	Ala	Cys	Glu	Met	Ala	Asn	Val	Asp	Cys	Val	Lys	Ile	Leu	Cys	Asp
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Arg	Gly	Ala	Lys	Leu	Asn	Cys	Tyr	Ser	Leu	Ser	Gly	His	Thr	Ala	Leu
	130					135					140				
His	Phe	Cys	Thr	Thr	Pro	Ser	Ser	Ile	Leu	Cys	Ala	Lys	Gln	Leu	Val
145				150					155					160	
Trp	Arg	Val	Thr	Gln	Val	Asn	His	Met	Leu	Gly	Asn	Ser	Leu	Val	Asn
			165					170						175	
Glu	Val	Glu	His	Val	Thr	Gln	Val	Asn	His	Met	Leu	Gly	Asn	Ser	Leu

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Val Asn Glu Val Glu His Gly Ala Asn Val Asn Met Lys Thr Asn Asn		
195	200	205
Gln Asp Glu Glu Thr Pro Leu His Thr Ala Ala His Phe Gly Leu Ser		
210	215	220
Glu Leu Val Ala Phe Tyr Val Glu His Gly Ala Ile Val Asp Ser Val		
225	230	235
Asn Ala His Met Glu Thr Pro Leu Ala Ile Ala Ala Tyr Trp Ala Leu		
245	250	255
Arg Phe Lys Glu Gln Glu Tyr Ser Thr Glu His His Leu Val Cys Arg		
260	265	270
Met Leu Leu Asp Tyr Lys Ala Glu Val Asn Ala Arg Asp Asp Asp Phe		
275	280	285
Lys Ser Pro Leu His Lys Ala Ala Trp Asn Cys Asp His Val Leu Met		
290	295	300
His Met Met Leu Glu Ala Gly Ala Glu Ala Asn Leu Met Asp Ile Asn		
305	310	315
Gly Cys Ala Ala Ile Gln Tyr Val Leu Lys Val Thr Ser Val Arg Pro		
325	330	335
Ala Ala Gln Pro Glu Ile Cys Tyr Gln Leu Leu Leu Asn His Gly Ala		
340	345	350
Ala Arg Ile Tyr Pro Pro Gln Phe His Lys Val Ile Gln Ala Cys His		
355	360	365
Ser Cys Pro Lys Ala Ile Glu Val Val Val Asn Ala Tyr Glu His Ile		
370	375	380
Arg Trp Asn Thr Lys Trp Arg Arg Ala Ile Pro Asp Asp Asp Leu Glu		
385	390	395
Val Asn Asn Arg Phe Pro Ser Asn Ser Phe His Tyr Gln Val Leu Pro		
405	410	415
Asp Cys Ser Arg Ser Thr Glu Asn Cys Asn Lys Lys Val Gly Phe Glu		
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<210> 4913
 <211> 2090
 <212> DNA
 <213> Homo sapiens

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2090

<210> 4914

<211> 529

<212> PRT

<213> Homo sapiens

<400> 4914

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			20					25					30		
Asn	Pro	Asn	Pro	Leu	Ile	Asn	Val	Arg	Asp	Arg	Leu	Phe	His	Ala	Leu
		35					40					45			
Phe	Phe	Lys	Met	Ala	Val	Thr	Tyr	Ser	Arg	Leu	Phe	Pro	Pro	Ala	Phe
	50					55				60					
Arg	Arg	Leu	Phe	Glu	Phe	Phe	Val	Leu	Leu	Lys	Ala	Leu	Phe	Val	Leu
65					70					75				80	
Phe	Val	Leu	Ala	Tyr	Ile	His	Ile	Val	Phe	Ser	Arg	Ser	Pro	Ile	Asn
				85					90					95	
Cys	Leu	Glu	His	Val	Arg	Asp	Lys	Trp	Pro	Arg	Glu	Gly	Ile	Leu	Arg
			100					105					110		
Val	Glu	Val	Arg	His	Asn	Ser	Ser	Arg	Ala	Pro	Val	Phe	Leu	Gln	Phe
			115					120				125			
Cys	Asp	Ser	Gly	Gly	Arg	Gly	Ser	Phe	Pro	Gly	Leu	Ala	Val	Glu	Pro
	130					135					140				
Gly	Ser	Asn	Leu	Asp	Met	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Leu	Thr	Met
145					150					155					160
Glu	Met	Phe	Gly	Asn	Ser	Ser	Ile	Lys	Phe	Glu	Leu	Asp	Ile	Glu	Pro
				165					170					175	
Lys	Val	Phe	Lys	Pro	Pro	Ser	Ser	Thr	Glu	Ala	Leu	Asn	Asp	Ser	Gln
			180					185						190	
Glu	Phe	Pro	Phe	Pro	Glu	Thr	Pro	Thr	Lys	Val	Trp	Pro	Gln	Asp	Glu
		195					200					205			
Tyr	Ile	Val	Glu	Tyr	Ser	Leu	Glu	Tyr	Gly	Phe	Leu	Arg	Leu	Ser	Gln
	210					215					220				
Ala	Thr	Arg	Gln	Arg	Leu	Ser	Ile	Pro	Val	Met	Val	Val	Thr	Leu	Asp
225					230					235					240
Pro	Thr	Arg	Asp	Gln	Cys	Phe	Gly	Asp	Arg	Phe	Ser	Arg	Leu	Leu	Leu
				245					250					255	
Asp	Glu	Phe	Leu	Gly	Tyr	Asp	Asp	Ile	Leu	Met	Ser	Ser	Val	Lys	Gly
		260						265					270		
Leu	Ala	Glu	Asn	Glu	Glu	Asn	Lys	Gly	Phe	Leu	Arg	Asn	Val	Val	Ser
		275					280					285			
Gly	Glu	His	Tyr	Arg	Phe	Val	Ser	Met	Trp	Met	Ala	Arg	Thr	Ser	Tyr
		290				295					300				
Leu	Ala	Ala	Phe	Ala	Ile	Met	Val	Ile	Phe	Thr	Leu	Ser	Val	Ser	Met
305					310					315					320
Leu	Leu	Arg	Tyr	Ser	His	His	Gln	Ile	Phe	Val	Phe	Ile	Val	Asp	Leu
				325					330					335	
Leu	Gln	Met	Leu	Glu	Met	Asn	Met	Ala	Ile	Ala	Phe	Pro	Ala	Ala	Pro

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          340          345          350
Leu Leu Thr Val Ile Leu Ala Leu Val Gly Met Glu Ala Ile Met Ser
          355          360          365
Glu Phe Phe Asn Asp Thr Thr Thr Ala Phe Tyr Ile Ile Leu Ile Val
          370          375          380
Trp Leu Ala Asp Gln Tyr Asp Ala Ile Cys Cys His Thr Ser Thr Ser
385          390          395          400
Lys Arg His Trp Leu Arg Phe Phe Tyr Leu Tyr His Phe Ala Phe Tyr
          405          410          415
Ala Tyr His Tyr Arg Phe Asn Gly Gln Tyr Ser Ser Leu Ala Leu Val
          420          425          430
Thr Ser Trp Leu Phe Ile Gln His Ser Met Ile Tyr Phe Phe His His
          435          440          445
Tyr Glu Leu Pro Ala Ile Leu Gln Gln Val Arg Ile Gln Glu Met Leu
          450          455          460
Leu Gln Ala Pro Pro Leu Gly Pro Gly Thr Pro Thr Ala Leu Pro Asp
465          470          475          480
Asp Met Asn Asn Asn Ser Gly Ala Pro Ala Thr Ala Pro Asp Ser Ala
          485          490          495
Gly Gln Pro Pro Ala Leu Gly Pro Val Phe Glu Leu Val Ser Lys Glu
          500          505          510
Arg Gly Trp Gly Ser Ala Glu Gly Ser Gly Gly Val Leu Val Gly Leu
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<210> 4915

<211> 1157

<212> DNA

<213> Homo sapiens

<400> 4915

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180
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660

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<210> 4916

<211> 59

<212> PRT

<213> Homo sapiens

<400> 4916

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Ala	Gly	Ala	Ser	Arg	Lys	Arg	Lys	Glu	Val	Pro	Ser	Arg	Leu	Arg	Thr
		20						25					30		
Trp	Gly	Pro	Gly	Gly	Asp	Ala	Pro	Arg	Gly	Ser	Gly	Leu	Lys	Arg	Pro
		35					40					45			
Arg	Gly	Pro	Arg	Gly	Pro	Ser	Ala	Ala	Pro	Arg					
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<210> 4917

<211> 1544

<212> DNA

<213> Homo sapiens

<400> 4917

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<210> 4918

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4918

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				20				25					30		
Trp	Leu	Gly	Leu	Ala	Gly	Pro	Gly	Ala	Ala	Ala	Asp	Gly	Ser	Glu	Pro
		35				40					45				
Ala	Ala	Gly	Ala	Gly	Arg	Gly	Gly	Ala	Arg	Ala	Val	Arg	Val	Asp	Val
	50				55						60				
Arg	Leu	Pro	Arg	Gln	Asp	Ala	Leu	Val	Leu	Glu	Gly	Val	Arg	Ile	Gly

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Asp Val Val Asp Ala Glu Gln Glu Ala Pro Ala Asp Gly Trp Ile Ala
          100          105          110
Val Ala Tyr Val Gly Lys Glu Gln Ala Ala Gln Phe His Gln Glu Asn
          115          120          125
Lys Gly Ser Gly Pro Gln Ala Tyr Pro Lys Ala Leu Val Gln Gln Met
          130          135          140
Arg Arg Ala Leu Phe Leu Gly Ala Ser Ala Leu Leu Leu Leu Ile Leu
          145          150          155          160
Asn His Asn Val Val Arg Glu Leu Asp Ile Ser Gln Leu Leu Leu Arg
          165          170          175
Pro Val Ile Val Leu His Tyr Ser Ser Asn Val Thr Lys Leu Leu Asp
          180          185          190
Ala Leu Leu Gln Arg Thr Gln Ala Thr Ala Glu Ile Thr Ser Gly Glu
          195          200          205
Ser Leu Ser Ala Asn Ile Glu Trp Lys Leu Thr Leu Trp Thr Thr Cys
          210          215          220
Gly Leu Ser Lys Asp Gly Tyr Gly Gly Trp Gln Asp Leu Val Cys Leu
          225          230          235          240
Gly Gly Ser Arg Ala Gln Glu Gln Lys Pro Leu Gln Gln Leu Trp Asn
          245          250          255
Ala Ile Leu Leu Val Ala Met Leu Leu Cys Thr Gly Leu Val Val Gln
          260          265          270
Ala Gln Arg Gln Ala Ser Arg Gln Ser Gln Arg Glu Leu Gly Gly Gln
          275          280          285
Val Asp Leu Phe Lys Arg Arg Val Val Arg Arg Leu Ala Ser Leu Lys
          290          295          300
Thr Arg Arg Cys Arg Leu Ser Arg Ala Ala Gln Gly Leu Pro Asp Pro
          305          310          315          320
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<210> 4919

<211> 1362

<212> DNA

<213> Homo sapiens

<400> 4919

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360

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<210> 4920

<211> 194

<212> PRT

<213> Homo sapiens

<400> 4920

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			20					25					30		
Phe	Val	Val	His	Thr	Val	Gln	Phe	Leu	Asn	Arg	Phe	Ser	Thr	Val	Cys
			35				40					45			
Glu	Glu	Lys	Leu	Ala	Asp	Leu	Ser	Leu	Arg	Ile	Gln	Gln	Ile	Glu	Thr
			50				55					60			
Thr	Leu	Asn	Ile	Leu	Asp	Ala	Lys	Leu	Ser	Ser	Ile	Pro	Gly	Leu	Asp
65					70				75					80	
Asp	Val	Thr	Val	Glu	Val	Ser	Pro	Leu	Asn	Val	Thr	Ser	Val	Thr	Asn
					85				90					95	
Gly	Ala	His	Pro	Glu	Ala	Thr	Ser	Glu	Gln	Pro	Gln	Gln	Asn	Ser	Thr

	100		105		110										
Gln	Asp	Ser	Gly	Leu	Gln	Glu	Ser	Glu	Val	Ser	Ala	Glu	Asn	Ile	Leu
	115					120		125							
Thr	Val	Ala	Lys	Asp	Pro	Arg	Tyr	Ala	Arg	Tyr	Leu	Lys	Met	Val	Gln
	130					135		140							
Val	Gly	Val	Pro	Val	Met	Ala	Ile	Arg	Asn	Lys	Met	Ile	Ser	Glu	Gly
145				150				155						160	
Leu	Asp	Pro	Asp	Leu	Leu	Glu	Arg	Pro	Asp	Ala	Pro	Val	Pro	Asp	Gly
			165					170						175	
Glu	Ser	Glu	Lys	Thr	Val	Glu	Glu	Ser	Ser	Asp	Ser	Glu	Ser	Ser	Phe
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Ser	Asp														

<210> 4921

<211> 1272

<212> DNA

<213> Homo sapiens

<400> 4921

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<212> PRT

<213> Homo sapiens

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		100						105					110	Met
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Leu	Arg	Lys	Ser	Lys	Glu	Glu	Tyr	Asp	Gln	Glu	Glu	Glu	Arg	Lys
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Lys	Lys	Gln	Leu	Ser	Glu	Ala	Lys	Thr	Glu	Glu	Pro	Thr	Val	His
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Pro	Ile	Ala	Asn	Leu	Ser	Val	Leu	Gly	Thr	Glu	Glu	Leu	Arg	Gln
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Glu	His	Tyr	Leu	Lys	Gln	Lys	Arg	Asp	Lys	Leu	Met	Ser	Met	Arg
	275					280						285		Lys
Asp	Met	Arg	Thr	Lys	Gln	Ile	Gln	Asn	Met	Glu	Gln	Lys	Gly	Lys
														Pro

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 <213> Homo sapiens

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 <212> PRT
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 35 40 45
 Ser Ser Ser Ser Ser Ser Gly Ser Leu Met His Arg Leu Ala Ile Phe

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65	70	75
Ala Gly Gly Trp Pro Pro Thr Lys Ala Lys Asn Ser Ala Ser Ser Ser		80
	85	90
Ser Ser Leu Ala Pro Ser Ser Gly Ile Ile Arg Pro Ser Gly Glu Arg		95
	100	105
Ser Thr Ser Arg Pro Ser Trp Arg Ala Ala Ala Ala Pro Leu Pro Gly		110
	115	120
Gly Pro Gly Gly Pro Ser Ser Cys Ala Ser Ser Arg Leu Asp Ala Arg		125
	130	135
Thr Thr Cys Pro Gln Ala Arg Pro Cys Pro Ala Pro Ser Pro Gly Ser		140
145	150	155
Val Ala Ala His Ser Pro Phe Leu Ser Pro Ala Leu Leu Val Gly Ala		160
	165	170
Leu Arg Pro Val Asp Pro Glu Pro Ser Leu Pro Cys Leu Ala Val Pro		175
	180	185
Leu Pro Pro Arg Ala Ser Gly Ala Ala Ala Pro Xaa Ser Ala Ala Ser		190
	195	200
Trp Ala Arg Arg Gly Leu Pro Ser Arg Asn Tyr Asn Ser Arg Gln Ile		205
	210	215
Ser Gln Gly Glu Asp Lys Met Thr Lys Arg Lys Lys Leu Arg Thr Ser		220
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<212> DNA

<213> Homo sapiens

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Leu Tyr Asp Asp Leu Tyr Cys Pro Ala Cys Asp Lys Ser Phe Lys Thr
      50           55           60
Glu Lys Ala Met Lys Asn His Glu Lys Ser Lys Lys His Arg Glu Met
      65           70           75           80
Val Ala Leu Leu Lys Gln Gln Leu Glu Glu Glu Glu Glu Asn Phe Ser
      85           90           95
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<212> PRT

<213> Homo sapiens

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65					70					75				80	
Lys	Glu	Ile	Tyr	His	Phe	Thr	Leu	Glu	Lys	Ile	Gln	Pro	Arg	Val	Ile
			85						90					95	
Ser	Phe	Glu	Glu	Gln	Val	Ala	Ser	Ile	Arg	Gln	His	Leu	Ala	Ser	Ile
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Tyr	Glu	Lys	Glu	Glu	Asp	Trp	Arg	Asn	Ala	Ala	Gln	Val	Leu	Val	Gly
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      225      230      235      240
Arg Ser Arg Met Leu Ala Thr Leu Phe Lys Asp Glu Arg Cys Gln Gln
      245      250      255
Leu Ala Ala Tyr Gly Ile Leu Glu Lys Met Tyr Leu Asp Arg Ile Ile
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Arg Gly Asn Gln Leu Gln Glu Phe Ala Ala Met Leu Met Pro His Gln
      275      280      285
Lys Ala Thr Thr Ala Asp Gly Ser Ser Ile Leu Asp Arg Ala Val Ile
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Glu Glu Leu Gly Ala Leu Leu Glu Ile Pro Ala Ala Lys Ala Glu Lys
      325      330      335
Ile Ala Ser Gln Met Ile Thr Glu Gly Arg Met Asn Gly Phe Ile Asp
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Gln Ile Asp Gly Ile Val His Phe Glu Thr Arg Glu Ala Leu Pro Thr
      355      360      365
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<212> DNA

<213> Homo sapiens

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<210> 4930

<211> 648

<212> PRT

<213> Homo sapiens

<400> 4930

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			20					25					30		
Val	Gln	Gln	Phe	Gly	Tyr	Gln	Arg	Arg	Ala	Ser	Asp	Asp	Gly	Lys	Leu
			35				40					45			
Thr	Asp	Pro	Ser	Lys	Thr	Ser	Asn	Thr	Ile	Arg	Val	Phe	Leu	Pro	Asn
	50					55				60					
Lys	Gln	Arg	Thr	Val	Val	Asn	Val	Arg	Asn	Gly	Met	Ser	Leu	His	Asp
65				70					75					80	
Cys	Leu	Met	Lys	Ala	Leu	Lys	Val	Arg	Gly	Leu	Gln	Pro	Glu	Cys	Cys
			85					90						95	
Ala	Val	Phe	Arg	Leu	Leu	His	Glu	His	Lys	Gly	Lys	Lys	Ala	Arg	Leu
			100				105						110		
Asp	Trp	Asn	Thr	Asp	Ala	Ala	Ser	Leu	Ile	Gly	Glu	Glu	Leu	Gln	Val
		115					120					125			
Asp	Phe	Leu	Asp	His	Val	Pro	Leu	Thr	Thr	His	Asn	Phe	Ala	Arg	Lys
	130					135				140					
Thr	Phe	Leu	Lys	Leu	Ala	Phe	Cys	Asp	Ile	Cys	Gln	Lys	Phe	Leu	Leu
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Asn	Gly	Phe	Arg	Cys	Gln	Thr	Cys	Gly	Tyr	Lys	Phe	His	Glu	His	Cys
			165					170						175	
Ser	Thr	Lys	Val	Pro	Thr	Met	Cys	Val	Asp	Trp	Ser	Asn	Ile	Arg	Gln
			180					185					190		
Leu	Leu	Leu	Phe	Pro	Asn	Ser	Thr	Ile	Gly	Asp	Ser	Gly	Val	Pro	Ala
	195					200						205			
Leu	Pro	Ser	Leu	Thr	Met	Arg	Arg	Met	Arg	Glu	Ser	Val	Ser	Arg	Met
210						215						220			
Pro	Val	Ser	Ser	Gln	His	Arg	Tyr	Ser	Thr	Pro	His	Ala	Phe	Thr	Phe

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225          230          235          240
Asn Thr Ser Ser Pro Ser Ser Glu Gly Ser Leu Ser Gln Arg Gln Arg
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Ser Thr Ser Thr Pro Asn Val His Met Val Ser Thr Thr Leu Pro Val
          260          265          270
Asp Ser Arg Met Ile Glu Asp Ala Ile Arg Ser His Ser Glu Ser Ala
          275          280          285
Ser Pro Ser Ala Leu Ser Ser Ser Pro Asn Asn Leu Ser Pro Thr Gly
          290          295          300
Trp Ser Gln Pro Lys Thr Pro Val Pro Ala Gln Arg Glu Arg Ala Pro
305          310          315          320
Val Ser Gly Thr Gln Glu Lys Asn Lys Ile Arg Pro Arg Gly Gln Arg
          325          330          335
Asp Ser Ser Tyr Tyr Trp Glu Ile Glu Ala Ser Glu Val Met Leu Ser
          340          345          350
Thr Arg Ile Gly Ser Gly Ser Phe Gly Thr Val Tyr Lys Gly Lys Trp
          355          360          365
His Gly Asp Val Ala Val Lys Ile Leu Lys Val Val Asp Pro Thr Pro
          370          375          380
Glu Gln Phe Gln Ala Phe Arg Asn Glu Val Ala Val Leu Arg Lys Thr
385          390          395          400
Arg His Val Asn Ile Leu Leu Phe Met Gly Tyr Met Thr Lys Asp Asn
          405          410          415
Leu Ala Ile Val Thr Gln Trp Cys Glu Gly Ser Ser Leu Tyr Lys His
          420          425          430
Leu His Val Gln Glu Thr Lys Phe Gln Met Phe Gln Leu Ile Asp Ile
          435          440          445
Ala Arg Gln Thr Ala Gln Gly Met Asp Tyr Leu His Ala Lys Asn Ile
          450          455          460
Ile His Arg Asp Met Lys Ser Asn Asn Ile Phe Leu His Glu Gly Leu
465          470          475          480
Thr Val Lys Ile Gly Asp Phe Gly Leu Ala Thr Val Lys Ser Arg Trp
          485          490          495
Ser Gly Ser Gln Gln Val Glu Gln Pro Thr Gly Ser Val Leu Trp Met
          500          505          510
Ala Pro Glu Val Ile Arg Met Gln Asp Asn Asn Pro Phe Ser Phe Gln
          515          520          525
Ser Asp Val Tyr Ser Tyr Gly Ile Val Leu Tyr Glu Leu Met Thr Gly
          530          535          540
Glu Leu Pro Tyr Ser His Ile Asn Asn Arg Asp Gln Ile Ile Phe Met
545          550          555          560
Val Gly Arg Gly Tyr Ala Ser Pro Asp Leu Ser Lys Leu Tyr Lys Asn
          565          570          575
Cys Pro Lys Ala Met Lys Arg Leu Val Ala Asp Cys Val Lys Lys Val
          580          585          590
Lys Glu Glu Arg Pro Leu Phe Pro Gln Ile Leu Ser Ser Ile Glu Leu
          595          600          605
Leu Gln His Ser Leu Pro Lys Ile Asn Arg Ser Ala Ser Glu Pro Ser
          610          615          620
Leu His Arg Ala Ala His Thr Glu Asp Ile Asn Ala Cys Thr Leu Thr
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Thr Ser Pro Arg Leu Pro Val Phe
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 <211> 261
 <212> DNA
 <213> Homo sapiens

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<210> 4932
 <211> 87
 <212> PRT
 <213> Homo sapiens

<400> 4932
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 Thr Gln Gly Thr Arg Lys Ile Leu Tyr Pro Tyr Ala His Leu Ser Ala
 35 40 45
 Glu Asp Phe Asn Ile Tyr Gly His Gly Gly Arg Gln Phe Trp Leu Val
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 Ser Ser Cys Phe Phe Phe Leu Leu Gly Gly Ala Ser Thr Cys Met Arg
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<210> 4933
 <211> 975
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<400> 4933
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 180
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 240
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 300
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 360

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 480
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<210> 4934

<211> 181

<212> PRT

<213> Homo sapiens

<400> 4934

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Thr	Phe	Arg	Pro	Thr	Met	Glu	Glu	Phe	Lys	Asp	Phe	Asn	Lys	Tyr	Val
			20					25					30		
Ala	Tyr	Ile	Glu	Ser	Gln	Gly	Ala	His	Arg	Ala	Gly	Leu	Ala	Lys	Ile
		35				40						45			
Ile	Pro	Pro	Lys	Glu	Trp	Lys	Pro	Arg	Gln	Thr	Tyr	Asp	Asp	Ile	Asp
	50					55					60				
Asp	Val	Val	Ile	Pro	Ala	Pro	Ile	Gln	Gln	Val	Val	Thr	Gly	Gln	Ser
	65				70				75					80	
Gly	Leu	Phe	Thr	Gln	Tyr	Asn	Ile	Gln	Lys	Lys	Ala	Met	Thr	Val	Gly
			85					90						95	
Glu	Tyr	Arg	Arg	Leu	Ala	Asn	Ser	Glu	Lys	Tyr	Cys	Thr	Pro	Arg	His
			100					105					110		
Gln	Asp	Phe	Asp	Asp	Leu	Glu	Arg	Lys	Tyr	Trp	Lys	Asn	Leu	Thr	Phe
	115					120						125			
Val	Ser	Pro	Ile	Tyr	Gly	Ala	Asp	Ile	Ser	Gly	Ser	Leu	Tyr	Asp	Asp
	130					135					140				
Val	Ser	Met	Arg	Leu	Arg	Gly	Arg	Thr	Gly	Thr	Ser	Phe	Leu	Val	Gly
	145				150					155					160
Gly	Gly	Gly	Arg	Ala	Leu	Asn	Gly	Thr	Leu	Pro	Trp	Gln	Met	Lys	Leu
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<210> 4935
<211> 1668
<212> DNA
<213> Homo sapiens

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 1620
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<210> 4936

<211> 337

<212> PRT

<213> Homo sapiens

<400> 4936

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		20						25					30		
Gly	Leu	Leu	Cys	Val	Cys	Trp	Ser	Pro	Asp	Gly	Lys	Tyr	Ile	Val	Thr
	35					40					45				
Gly	Gly	Glu	Asp	Asp	Leu	Val	Thr	Val	Trp	Ser	Phe	Val	Asp	Cys	Arg
	50				55					60					
Val	Ile	Ala	Arg	Gly	His	Gly	His	Lys	Ser	Trp	Val	Ser	Val	Val	Ala
65				70				75						80	
Phe	Asp	Pro	Tyr	Thr	Thr	Ser	Val	Glu	Glu	Gly	Asp	Pro	Met	Glu	Phe
			85					90					95		
Ser	Gly	Ser	Asp	Glu	Asp	Phe	Gln	Asp	Leu	Leu	His	Phe	Gly	Glu	Ile
		100					105						110		
Glu	Gln	Ile	Val	His	Ser	Pro	Gly	Ser	Pro	Asn	Gly	Thr	Leu	Gln	Thr
	115					120						125			
Ala	Ala	Pro	Ser	Val	Thr	Tyr	Arg	Phe	Gly	Ser	Val	Gly	Gln	Asp	Thr
	130				135						140				
Gln	Leu	Cys	Leu	Trp	Asp	Leu	Thr	Glu	Asp	Ile	Leu	Phe	Pro	His	Gln
145				150				155						160	
Pro	Leu	Ser	Arg	Ala	Arg	Thr	His	Thr	Asn	Val	Met	Asn	Ala	Thr	Ser
			165					170						175	
Pro	Pro	Ala	Gly	Ser	Asn	Gly	Asn	Ser	Val	Thr	Thr	Pro	Gly	Asn	Ser
		180				185							190		
Val	Pro	Pro	Pro	Leu	Pro	Arg	Ser	Asn	Ser	Leu	Pro	His	Ser	Ala	Val
	195					200						205			
Ser	Asn	Ala	Gly	Ser	Lys	Ser	Ser	Val	Met	Asp	Gly	Ala	Ile	Ala	Ser
	210				215					220					
Gly	Val	Ser	Lys	Phe	Ala	Thr	Leu	Ser	Leu	His	Asp	Arg	Lys	Glu	Arg
225			230							235				240	
His	His	Glu	Lys	Asp	His	Lys	Arg	Asn	His	Ser	Met	Gly	His	Ile	Ser
			245					250					255		
Ser	Lys	Ser	Ser	Asp	Lys	Leu	Asn	Leu	Val	Thr	Lys	Thr	Lys	Thr	Asp
			260				265						270		
Pro	Ala	Lys	Thr	Leu	Gly	Thr	Pro	Leu	Cys	Pro	Arg	Met	Glu	Asp	Val
	275					280						285			
Pro	Leu	Glu	Pro	Leu	Ile	Cys	Lys	Lys	Ile	Ala	His	Glu	Arg	Leu	
290				295						300					
Thr	Val	Leu	Ile	Phe	Leu	Glu	Asp	Cys	Ile	Val	Thr	Ala	Cys	Gln	Glu

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<210> 4942

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4942

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Ile	Gln	Val	His	Tyr	His	Ile	Gly	Leu	Asn	Leu	Pro	Gly	Cys	Val
		20					25					30		Ala
Pro	Pro	Lys	Asp	Thr	Lys	Lys	Gly	Ala	Gln	Pro	Ser	Pro	Phe	Val
		35					40					45		Pro
Val	Arg	Trp	Val	Val	Lys	Val	Val	Lys	Thr	Leu	Leu	Leu	Arg	Met
	50				55					60				Gly
Cys	Ser	Tyr	Glu	Thr	Thr	Phe	Leu	Glu	Asp	Gln	Gly	Gly	Trp	Glu
65					70					75				80
Met	Glu	Gln	Val	Glu	Ser	His	His	Arg	Gly	Val	Ala	Leu	Leu	Ala
			85						90					95
Ala	Met	Val	Gln	Tyr	Ser	Cys	Gln	Glu	Leu	Cys	Arg	Ile	Leu	Tyr
		100						105					110	Leu
Leu	Ile	Pro	Leu	Leu	Glu	Arg	Gly	Asp	Glu	Lys	His	Arg	Ile	Thr
	115						120					125		Ala
Thr	Ala	Phe	Phe	Val	Glu	Leu	Gln	Met	Glu	Gln	Val	Arg	Arg	Ile
	130					135				140				
Pro	Glu	Glu	Tyr	Ser	Leu	Gly	Arg	Met	Ala	Glu	Gly	Leu	Ser	His
145					150					155				160
Asp	Pro	Ile	Met	Lys	Val	Leu	Ser	Ile	Arg	Gly	Leu	Val	Ile	Leu
			165						170					175
Arg	Arg	Ser	Glu	Lys	Thr	Ala	Lys	Val	Lys	Ala	Leu	Leu	Pro	Ser
		180						185					190	Met
Val	Lys	Gly	Leu	Lys	Asn	Met	Asp	Gly	Met	Leu	Val	Val	Glu	Ala
	195					200						205		Val
His	Asn	Leu	Lys	Ala	Val	Phe	Lys	Gly	Arg	Asp	Gln	Lys	Leu	Met
														Asp


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      210              215              220
Ser Ala Val Tyr Val Glu Met Leu Gln Ile Leu Leu Pro His Phe Ser
225              230              235              240
Asp Ala Arg Glu Val Val Arg Ser Ser Cys Ile Asn Leu Tyr Gly Lys
      245              250              255
Val Val Gln Lys Leu Arg Ala Pro Arg Thr Gln Ala Met Glu Glu Gln
      260              265              270
Leu Val Ser Thr Leu Val Pro Leu Leu Leu Thr Met Gln Glu Gly Asn
      275              280              285
Ser Lys Val Ser Gln Lys Cys Val Lys Thr Leu Leu Arg Cys Ser Tyr
      290              295              300
Phe Met Ala Trp Glu Leu Pro Lys Arg Ala Tyr Ser Arg Lys Pro Trp
305              310              315              320
Asp Asn Gln Gln Gln Thr Val Ala Lys Ile Cys Lys Cys Leu Val Asn
      325              330              335
Thr His Arg Asp Ser Ala Phe Ile Phe Leu Ser Gln Ser Leu Glu Tyr
      340              345              350
Ala Lys Asn Ser Arg Ala Ser Leu Arg Lys Cys Ser Val Met Phe Ile
      355              360              365
Gly Ser Leu Val Pro Cys Met Glu Ser Ile Met Thr Glu Asp Arg Leu
      370              375              380
Asn Glu Val Lys Ala Ala Leu Asp Asn Leu Arg His Asp Pro Glu Ala
385              390              395              400
Ser Val Cys Ile Tyr Ala Ala Gln Val Gln Asp His Ile Leu Ala Ser
      405              410              415
Cys Trp Gln Asn Ser Trp Leu Pro His Gly Asn Ser Trp Val Cys Tyr
      420              425              430
Ser Ala Thr Thr His Arg Trp Ser Pro Ser Cys Glu Asn Leu Pro Thr
      435              440              445
Ser His Gln Arg Arg Ser Trp Ile Met Gln Ala Leu Gly Ser Trp Lys
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<210> 4943
<211> 1020
<212> DNA
<213> Homo sapiens

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<400> 4943
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180
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300
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360
taattttgta accaccttaa gaaaaatacg gaactetaac tccttgccac tcaagaaatg
420

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tcctcccttt cagaatatgc cttccgcatg tctcgtctca gtgcccggct atttggtgaa
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 540
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 600
 atgcagacgc tccgatttct tggactctac agagatgagc atcaggattt tatggatgag
 660
 caaaaacgac taaagaagct tcgtggaaag gagaaaccaa agaaaggaga agggaaaaga
 720
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 840
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 900
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<210> 4944

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4944

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Arg	Leu	Phe	Gly	Glu	Val	Thr	Arg	Pro	Thr	Asn	Ser	Lys	Ser	Met	Lys
			20					25				30			
Val	Val	Lys	Leu	Phe	Ser	Glu	Leu	Pro	Leu	Ala	Lys	Lys	Lys	Glu	Thr
		35					40				45				
Tyr	Asp	Trp	Tyr	Pro	Asn	His	His	Thr	Tyr	Ala	Glu	Leu	Met	Gln	Thr
	50					55				60					
Leu	Arg	Phe	Leu	Gly	Leu	Tyr	Arg	Asp	Glu	His	Gln	Asp	Phe	Met	Asp
65					70				75					80	
Glu	Gln	Lys	Arg	Leu	Lys	Lys	Leu	Arg	Gly	Lys	Glu	Lys	Pro	Lys	Lys
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<210> 4945

<211> 1792

<212> DNA

<213> Homo sapiens

<400> 4945

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240
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300
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360
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420
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480
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540
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600
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660
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720
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1620
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1680
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1792

<210> 4946
 <211> 197
 <212> PRT
 <213> Homo sapiens

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 Pro Pro Gly Gln Glu Tyr Arg Met Tyr Asn Thr Tyr Asp Val His Phe
 35 40 45
 Tyr Ala Ser Phe Ala Leu Ile Met Leu Trp Pro Lys Leu Glu Leu Ser
 50 55 60
 Leu Gln Tyr Asp Met Ala Leu Ala Thr Leu Arg Glu Asp Leu Thr Arg
 65 70 75 80
 Arg Arg Tyr Leu Met Ser Gly Val Met Ala Pro Val Lys Arg Arg Asn
 85 90 95
 Val Ile Pro His Asp Ile Gly Asp Pro Asp Asp Glu Pro Trp Leu Arg
 100 105 110
 Val Asn Ala Tyr Leu Ile His Asp Thr Ala Asp Trp Lys Asp Leu Asn
 115 120 125
 Leu Lys Phe Val Leu Gln Val Tyr Arg Asp Tyr Tyr Leu Thr Gly Asp
 130 135 140
 Gln Asn Phe Leu Lys Asp Met Trp Pro Val Cys Leu Val Arg Asp Ala
 145 150 155 160
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 165 170 175
 Leu Ala Gly Cys Leu Ser Ser Val Pro Arg Ser Ser Thr Ser Trp
 180 185 190
 Ser Leu Ser Arg Leu
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<210> 4947
 <211> 2060
 <212> DNA
 <213> Homo sapiens

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 300
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 360
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 420

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480
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540
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600
gtagcattgg taaagtggaa ggaccttggt ctgtttgtca gtaggagctg atgtgtgtga
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720
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960
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1020
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1740
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1920
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2040

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2060

<210> 4948
<211> 127
<212> PRT
<213> Homo sapiens

<400> 4948
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Val Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn
35 40 45
Trp Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu
50 55 60
Leu Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg
65 70 75 80
Phe Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala
85 90 95
Lys Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly
100 105 110
Ala Ala Val Thr Leu Lys Asn Leu Thr Xaa Leu Asn Gln Arg Arg
115 120 125

<210> 4949
<211> 1259
<212> DNA
<213> Homo sapiens

<400> 4949
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120
gcttgggagg aaaagacgct gtccaagtac gattccagcg agattcgctt gctggagatc
180
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240
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360
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420
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540
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600
gtgggctggg tgctggacga gggcgctgtg gtggatgtgg acgagtgtgc ggccgagccg
660

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 720
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 780
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 840
 aaaacctgtg tgaggaaaaa cgaactgc tacaatactc caggagcta cgtctgtgtg
 900
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 1020
 taccctttaa attattcaga aggatgtccc gtggaaaatg tggccctgag gatgccgtct
 1080
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<210> 4950

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4950

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		20					25					30		
Lys	Asn	Phe	Gly	Gly	Gly	Asn	Thr	Ala	Trp	Glu	Glu	Lys	Thr	Leu
		35				40						45		
Lys	Tyr	Glu	Ser	Ser	Glu	Ile	Arg	Leu	Leu	Glu	Ile	Leu	Glu	Gly
	50				55					60				
Cys	Glu	Ser	Ser	Asp	Phe	Glu	Cys	Asn	Gln	Met	Leu	Glu	Ala	Gln
65				70					75					80
Glu	His	Leu	Glu	Ala	Trp	Trp	Leu	Gln	Leu	Lys	Ser	Glu	Tyr	Pro
		85					90						95	
Leu	Phe	Glu	Trp	Phe	Cys	Val	Lys	Thr	Leu	Lys	Val	Cys	Cys	Ser
		100					105					110		
Gly	Thr	Tyr	Gly	Pro	Asp	Cys	Leu	Ala	Cys	Gln	Gly	Gly	Ser	Gln
		115				120						125		
Pro	Cys	Ser	Gly	Asn	Gly	His	Cys	Ser	Gly	Asp	Gly	Ser	Arg	Gln
	130				135						140			
Asp	Gly	Ser	Cys	Arg	Cys	His	Met	Gly	Tyr	Gln	Gly	Pro	Leu	Cys
145				150					155					160
Asp	Cys	Met	Asp	Gly	Tyr	Phe	Ser	Ser	Leu	Arg	Asn	Glu	Thr	His
		165							170				175	
Ile	Cys	Thr	Ala	Cys	Asp	Glu	Ser	Cys	Lys	Thr	Cys	Ser	Gly	Leu
		180						185				190		
Asn	Arg	Asp	Cys	Gly	Glu	Cys	Glu	Val	Gly	Trp	Val	Leu	Asp	Glu
	195				200							205		
Ala	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Ala	Glu	Pro	Pro	Pro	Cys
														Ser

210	215	220
Ala Ala Gln Phe Cys Lys Asn Ala Asn Gly Ser Tyr Thr Cys Glu Glu		
225	230	235
Cys Asp Ser Ser Cys Val Gly Cys Thr Gly Glu Gly Pro Gly Asn Cys		240
	245	250
Lys Glu Cys Ile Ser Gly Tyr Ala Arg Glu His Gly Gln Cys Ala Asp		255
	260	265
Val Asp Glu Cys Ser Leu Ala Glu Lys Thr Cys Val Arg Lys Asn Glu		270
	275	280
Asn Cys Tyr Asn Thr Pro Gly Ser Tyr Val Cys Val Cys Pro Asp Gly		285
	290	295
Phe Glu Glu Xaa Gly Arg Cys Leu Cys Ala Ala Gly Arg Gly		300
305	310	315

<210> 4951

<211> 1835

<212> DNA

<213> Homo sapiens

<400> 4951

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120
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180
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240
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300
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1020

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<210> 4952

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4952

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			20					25					30		
Val	Pro	Arg	Ala	Phe	His	Ala	Ser	Ala	Val	Gly	Leu	Arg	Ser	Ser	Asp
		35					40					45			
Glu	Gln	Lys	Gln	Gln	Pro	Pro	Asn	Ser	Phe	Ser	Gln	Gln	His	Ser	Glu
		50				55					60				
Thr	Gln	Gly	Ala	Glu	Lys	Pro	Asp	Pro	Glu	Ser	Ser	His	Ser	Pro	Pro
65					70					75				80	
Arg	Tyr	Thr	Asp	Gln	Gly	Gly	Glu	Glu	Glu	Asp	Tyr	Glu	Ser	Glu	
			85					90					95		
Glu	Gln	Leu	Gln	His	Arg	Ile	Leu	Thr	Ala	Ala	Leu	Glu	Phe	Val	Pro
			100					105					110		
Ala	His	Gly	Trp	Thr	Ala	Glu	Ala	Ile	Ala	Glu	Gly	Ala	Gln	Ser	Leu
		115					120					125			
Gly	Leu	Ser	Ser	Ala	Ala	Ala	Ser	Met	Phe	Gly	Arg	Met	Gly	Ser	Glu
	130					135					140				
Leu	Ile	Leu	His	Phe	Val	Thr	Gln	Cys	Asn	Thr	Arg	Leu	Thr	Arg	Val

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145          150          155          160
Leu Glu Glu Glu Gln Lys Leu Val Gln Leu Gly Gln Ala Glu Lys Arg
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Lys Thr Asp Gln Phe Leu Arg Asp Ala Val Glu Thr Arg Leu Arg Met
          180          185          190
Leu Ile Pro Tyr Ile Glu His Trp Pro Arg Ala Leu Ser Ile Leu Met
          195          200          205
Leu Pro His Asn Ile Pro Ser Ser Leu Ser Leu Leu Thr Ser Met Val
          210          215          220
Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn Trp
225          230          235          240
Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu Leu
          245          250          255
Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg Phe
          260          265          270
Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala Lys
          275          280          285
Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly Ala
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Ala Val Thr Leu Lys Asn Leu Thr Gly Leu Asn Gln Arg Arg
305          310          315

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<210> 4953
<211> 355
<212> DNA
<213> Homo sapiens

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180
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240
tccgatttgg atagaccctc ttgggaccca ctgcaccagg gaaccccaaa tgcagctcag
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355

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<210> 4954
<211> 114
<212> PRT
<213> Homo sapiens

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<400> 4954
Met Ala Gly Gly Arg Gln Asp Arg Arg Ala Gln Ala Trp Thr Pro Leu
1      5      10      15
Ser Ala Trp Gly Cys Leu Ala Ala Ser Pro Val Leu Gly Ala Gly Ile
20     25     30
Thr Trp Pro Arg Val Pro Pro Gly Gly Ser Leu Lys Glu Gly Arg Ala
35     40     45
Val Gly Arg Ser Gln Arg Gly Pro Thr Pro Gln Asn Ala His Lys Ser

```

```

      50              55              60
Trp Asn Gln Leu Val Thr Ala Ala Gly Pro Ser Arg Pro Ile Trp Ile
65              70              75              80
Asp Pro Leu Gly Thr His Cys Thr Arg Glu Pro Gln Met Gln Leu Ser
      85              90              95
Ser Met Gly Gly Ala Leu Ser Ala Gly Gly Val Trp Asp Arg Arg Arg
      100              105              110
Glu Ala

```

```

<210> 4955
<211> 364
<212> DNA;
<213> Homo sapiens

```

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<400> 4955
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aactgcaaga caggggtggcc ggggacacca gcctccgccc ttctgtgaca taaggacaag
120
agctcagcct gccaggaac aactctgggc aagagatgtg gaaagaaaga gctcangggg
180
gggcacgcat ggcacacctg ggggacatct gagggcaccc ccacccaacta ttcctccctc
240
caaggtggcc tctgagtgtg aaggcagggg gaagcagaca cctgcccctc actctccctc
300
cctaccacat agctaccggg tggggggcgt ccctgggatg attcctgagg gcaggatcca
360
gggg
364

```

```

<210> 4956
<211> 114
<212> PRT
<213> Homo sapiens

```

```

<400> 4956
Met Gly Thr Glu His Leu Gly Leu Arg Pro Glu Glu Gln Thr Ala Arg
1      5      10      15
Gln Gly Gly Arg Gly His Gln Pro Pro Phe Cys Asp Ile Arg Thr
20      25      30
Arg Ala Gln Pro Ala Gln Glu Gln Leu Trp Ala Arg Asp Val Glu Arg
35      40      45
Lys Ser Ser Xaa Gly Gly Thr His Gly Ile Leu Gly Gly His Leu Arg
50      55      60
Ala Pro Pro Pro Thr Ile Pro Pro Ser Lys Val Ala Ser Glu Cys Glu
65      70      75      80
Gly Arg Gly Lys Gln Thr Pro Ala Pro His Ser Pro Ser Leu Pro His
85      90      95
Ser Tyr Arg Val Gly Gly Val Pro Gly Met Ile Pro Glu Gly Arg Ile
100      105      110
Gln Gly

```

<210> 4957

<211> 872

<212> DNA

<213> Homo sapiens

<400> 4957

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120
tcttgacaag actgtacagg gcttctcacc atacacaaac cctccacagc ccacggctcc
180
aaccacacgc acctcctgca gtccctggagg gaaaagggac agtaacatga agtgtctgaa
240
gatecatttc acctcttttc catgtgaatc atgacgcttt caatgcattt cttgacagga
300
ttctat ttttg aaagaatgat gctcaatctg taccttttat gcttcttggt tcttctccat
360
caataatatg tcagtcaact gcttgtcaga gacacttagc tgctgacagg tctcataaac
420
ctgactcagg taaactgcc aagatgctt gcacaggatg ctgtcactct tccgtagcac
480
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540
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600
ggactgtcga tcaactaggt ccaaggcctg ggtggctgat gagccaaaga gaaacttcag
660
cgataacaga tattcatcag gaattcggtc ccgtacttcg cgcgctctcc tgcaccgccg
720
ccgccatctc gctcaggagc tctccacaa ccgccggcaa ctacggccat cgcgccgcag
780
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872

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<210> 4958

<211> 51

<212> PRT

<213> Homo sapiens

<400> 4958

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Gln Ile Phe Ile Arg Asn Ser Val Pro Tyr Phe Ala Arg Ser Pro Ala
1           5           10          15
Pro Pro Pro Pro Ser Arg Ser Gly Ala Pro Pro Gln Pro Pro Ala Thr
20          25          30
Thr Ala Ile Ala Pro Gln Asp Thr Pro Ser Thr Thr Arg Thr Ala Arg
35          40          45
Arg Ser Ser
50

```

<210> 4959

<211> 449

<212> DNA
 <213> Homo sapiens

<400> 4959
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 60
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 120
 gcagggataa agaggagagc tggcatctgg agtcatgata tgtctgagag gcagtgcctc
 180
 cggccaccgt aggatggagg ccagcttcca gccctggctg atgggggaga agcagcgaat
 240
 tctccagatg tggatggca gacctttgga agattcactc ggctccact taaccttgtg
 300
 agaccaaagg ccacagcccc atgtgttctg cgtgctgttg aacatgtttg tatttcattg
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 420
 cacaaaggtc aaccctttcc gtttctaga
 449

<210> 4960
 <211> 115
 <212> PRT
 <213> Homo sapiens

<400> 4960
 Met Phe Asn Ser Thr Gln Asn Thr Trp Gly Cys Gly Leu Trp Ser His
 1 5 10 15
 Lys Val Lys Trp Arg Pro Ser Glu Ser Ser Lys Gly Leu Pro Tyr His
 20 25 30
 Ile Trp Arg Ile Arg Cys Phe Ser Pro Ile Ser Gln Gly Trp Lys Leu
 35 40 45
 Ala Ser Ile Leu Arg Trp Pro Glu Ala Leu Pro Leu Arg Gln Ile Met
 50 55 60
 Thr Pro Asp Ala Ser Ser Pro Leu Tyr Pro Cys His Met Glu Gly Pro
 65 70 75 80
 Lys His Leu Ala Leu Asn Cys Lys Trp Lys Pro Pro Gln Pro Leu His
 85 90 95
 Gln Pro Pro Ala Lys Glu Thr Thr Thr Thr Ile Cys Ile Pro Ser Leu
 100 105 110
 Asp Thr Arg
 115

<210> 4961
 <211> 4737
 <212> DNA
 <213> Homo sapiens

<400> 4961
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 120

tccaagaaca gcaagcgtgc ccgggagaag cgcgacagcc gcaacatgga agtacaggtc
180
accaggaga tgcgcaacgt cagtataggc atgggcagca gtgacgagtg gtctgatgtt
240
caagacatta ttgactccac gccagagctg gacatgtgtc cagagacccg cctggaccgc
300
acaggaagca gcccaccca gggcatcgtg aacaaagctt tcggcatcaa caccgactcc
360
ctgtaccatg agctgtcgac ggcaggggtct gaggtcatcg gggatgtgga cgaaggggccc
420
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480
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540
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 4737

<210> 4962

<211> 1069

<212> PRT

<213> Homo sapiens

<400> 4962

Ala Ala Ala Thr Pro Ser Thr Thr Gly Thr Lys Ser Asn Thr Pro Thr

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Ser Ser Val Pro Ser Ala Ala Val Thr Pro Leu Asn Glu Ser Leu Gln			
20	25	30	
Pro Leu Gly Asp Tyr Gly Val Gly Ser Lys Asn Ser Lys Arg Ala Arg			
35	40	45	
Glu Lys Arg Asp Ser Arg Asn Met Glu Val Gln Val Thr Gln Glu Met			
50	55	60	
Arg Asn Val Ser Ile Gly Met Gly Ser Ser Asp Glu Trp Ser Asp Val			
65	70	75	80
Gln Asp Ile Ile Asp Ser Thr Pro Glu Leu Asp Met Cys Pro Glu Thr			
85	90	95	
Arg Leu Asp Arg Thr Gly Ser Ser Pro Thr Gln Gly Ile Val Asn Lys			
100	105	110	
Ala Phe Gly Ile Asn Thr Asp Ser Leu Tyr His Glu Leu Ser Thr Ala			
115	120	125	
Gly Ser Glu Val Ile Gly Asp Val Asp Glu Gly Ala Asp Leu Leu Gly			
130	135	140	
Glu Phe Ser Gly Met Gly Lys Glu Val Gly Asn Leu Leu Leu Glu Asn			
145	150	155	160
Ser Gln Leu Leu Glu Thr Lys Asn Ala Leu Asn Val Val Lys Asn Asp			
165	170	175	
Leu Ile Ala Lys Val Asp Gln Leu Ser Gly Glu Gln Glu Val Leu Arg			
180	185	190	
Gly Glu Leu Glu Ala Ala Lys Gln Ala Lys Val Lys Leu Glu Asn Arg			
195	200	205	
Ile Lys Glu Leu Glu Glu Glu Leu Lys Arg Val Lys Ser Glu Ala Ile			
210	215	220	
Ile Ala Arg Arg Glu Pro Lys Glu Glu Ala Glu Asp Val Ser Ser Tyr			
225	230	235	240
Leu Cys Thr Glu Ser Asp Lys Ile Pro Met Ala Gln Arg Arg Arg Phe			
245	250	255	
Thr Arg Val Glu Met Ala Arg Val Leu Met Glu Arg Asn Gln Tyr Lys			
260	265	270	
Glu Arg Leu Met Glu Leu Gln Glu Ala Val Arg Trp Thr Glu Met Ile			
275	280	285	
Arg Ala Ser Arg Glu His Pro Ser Val Gln Glu Lys Lys Lys Ser Thr			
290	295	300	
Ile Trp Gln Phe Phe Ser Arg Leu Phe Ser Ser Ser Ser Ser Pro Pro			
305	310	315	320
Pro Ala Lys Arg Pro Tyr Pro Ser Val Asn Ile His Tyr Lys Ser Pro			
325	330	335	
Thr Thr Ala Gly Phe Ser Gln Arg Arg Asn His Ala Met Cys Pro Ile			
340	345	350	
Ser Ala Gly Ser Arg Pro Leu Glu Phe Phe Pro Asp Asp Asp Cys Thr			
355	360	365	
Ser Ser Ala Arg Arg Glu Gln Lys Arg Glu Gln Tyr Arg Gln Val Arg			
370	375	380	
Glu His Val Arg Asn Asp Asp Gly Arg Leu Gln Ala Cys Gly Trp Ser			
385	390	395	400
Leu Pro Ala Lys Tyr Lys Gln Leu Ser Pro Asn Gly Gly Gln Glu Asp			
405	410	415	
Thr Arg Met Lys Asn Val Pro Val Pro Val Tyr Cys Arg Pro Leu Val			
420	425	430	
Glu Lys Asp Pro Thr Met Lys Leu Trp Cys Ala Ala Gly Val Asn Leu			

435	440	445
Ser Gly Trp Arg Pro Asn Glu	Asp Asp Ala Gly Asn Gly Val Lys Pro	
450	455	460
Ala Pro Gly Arg Asp Pro Leu Thr Cys Asp Arg Glu Gly Asp Gly Glu		
465	470	475
Pro Lys Ser Ala His Ala Ser Pro Glu Lys Lys Lys Ala Lys Glu Leu		480
485	490	495
Pro Glu Met Asp Ala Thr Ser Ser Arg Val Trp Ile Leu Thr Ser Thr		
500	505	510
Leu Thr Thr Ser Lys Val Val Ile Ile Asp Ala Asn Gln Pro Gly Thr		
515	520	525
Val Val Asp Gln Phe Thr Val Cys Asn Ala His Val Leu Cys Ile Ser		
530	535	540
Ser Ile Pro Ala Ala Ser Asp Ser Asp Tyr Pro Pro Gly Glu Met Phe		
545	550	555
Leu Asp Ser Asp Val Asn Pro Glu Asp Pro Gly Ala Asp Gly Val Leu		560
565	570	575
Ala Gly Ile Thr Leu Val Gly Cys Ala Thr Arg Cys Asn Val Pro Arg		
580	585	590
Ser Asn Cys Ser Ser Arg Gly Asp Thr Pro Val Leu Asp Lys Gly Gln		
595	600	605
Gly Glu Val Ala Thr Ile Ala Asn Gly Lys Val Asn Pro Ser Gln Ser		
610	615	620
Thr Glu Glu Ala Thr Glu Ala Thr Glu Val Pro Asp Pro Gly Pro Ser		
625	630	635
Glu Pro Glu Thr Ala Thr Leu Arg Pro Gly Pro Leu Thr Glu His Val		
645	650	655
Phe Thr Asp Pro Ala Pro Thr Pro Ser Ser Gly Pro Gln Pro Gly Ser		
660	665	670
Glu Asn Gly Pro Glu Pro Asp Ser Ser Ser Thr Arg Pro Glu Pro Glu		
675	680	685
Pro Ser Gly Asp Pro Thr Gly Ala Gly Ser Ser Ala Ala Pro Thr Met		
690	695	700
Trp Leu Gly Ala Gln Asn Gly Trp Leu Tyr Val His Ser Ala Val Ala		
705	710	715
Asn Trp Lys Lys Cys Leu His Ser Ile Lys Leu Lys Asp Ser Val Leu		
725	730	735
Ser Leu Val His Val Lys Gly Arg Val Leu Val Ala Leu Ala Asp Gly		
740	745	750
Thr Leu Ala Ile Phe His Arg Gly Glu Asp Gly Gln Trp Asp Leu Ser		
755	760	765
Asn Tyr His Leu Met Asp Leu Gly His Pro His His Ser Ile Arg Cys		
770	775	780
Met Ala Val Val Tyr Asp Arg Val Trp Cys Gly Tyr Lys Asn Lys Val		
785	790	795
His Val Ile Gln Pro Lys Thr Met Gln Ile Glu Lys Ser Phe Asp Ala		
805	810	815
His Pro Arg Arg Glu Ser Gln Val Arg Gln Leu Ala Trp Ile Gly Asp		
820	825	830
Gly Val Trp Val Ser Ile Arg Leu Asp Ser Thr Leu Arg Leu Tyr His		
835	840	845
Ala His Thr His Gln His Leu Gln Asp Val Asp Ile Glu Pro Tyr Val		
850	855	860
Ser Lys Met Leu Gly Thr Gly Lys Leu Gly Phe Ser Phe Val Arg Ile		

865 870 875 880
 Thr Ala Leu Leu Val Ala Gly Ser Arg Leu Trp Val Gly Thr Gly Asn
 885 890 895
 Gly Val Val Ile Ser Ile Pro Leu Thr Glu Thr Val Val Leu His Arg
 900 905 910
 Gly Gln Leu Leu Gly Leu Arg Ala Asn Lys Thr Ser Pro Thr Ser Gly
 915 920 925
 Glu Gly Ala Arg Pro Gly Gly Ile Ile His Val Tyr Gly Asp Asp Ser
 930 935 940
 Ser Asp Arg Ala Ala Ser Ser Phe Ile Pro Tyr Cys Ser Met Ala Gln
 945 950 955 960
 Ala Gln Leu Cys Phe His Gly His Arg Asp Ala Val Lys Phe Phe Val
 965 970 975
 Ser Val Pro Gly Asn Val Leu Ala Thr Leu Asn Gly Ser Val Leu Asp
 980 985 990
 Ser Pro Ala Glu Gly Pro Gly Pro Ala Ala Pro Ala Ser Glu Val Glu
 995 1000 1005
 Gly Gln Lys Leu Arg Asn Val Leu Val Leu Ser Gly Gly Glu Gly Tyr
 1010 1015 1020
 Ile Asp Phe Arg Ile Gly Asp Gly Glu Asp Asp Glu Thr Glu Glu Gly
 1025 1030 1035 1040
 Ala Gly Asp Met Ser Gln Val Lys Pro Val Leu Ser Lys Ala Glu Arg
 1045 1050 1055
 Ser His Ile Ile Val Trp Gln Val Ser Tyr Thr Pro Glu
 1060 1065

<210> 4963
 <211> 1575
 <212> DNA
 <213> Homo sapiens

<400> 4963
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 120
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 180
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 420
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 480
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 660

gccacaggt ggagcaagct caggaacatc gcaaaggtgg tgagccaggt gcacgcgttc
 720
 caggagaacc cttacacctt cagccccgac cccaagctcc agtcgtacct caagcagagg
 780
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 840
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 1020
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 1260
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 1560
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 1575

<210> 4964

<211> 304

<212> PRT

<213> Homo sapiens

<400> 4964

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Leu	Leu	Gln	Gln	Glu	Leu	Phe	Gln	Lys	Cys	His	Pro	Val	His	Phe	Leu
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Asn	Ser	Arg	Ala	Leu	Gly	Val	Met	Asp	Lys	Ser	Thr	Ala	Ile	Pro	Lys
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Pro	Asn	Tyr	Val	Gln	Asp	Lys	Tyr	Leu	Leu	Gln	Leu	Leu	Arg	Asn	Ala
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Asp	Asp	Val	Ser	Thr	Trp	Val	Ala	Ala	Glu	Ile	Val	Thr	Ser	His	Thr
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Ser	Lys	Leu	Gln	Val	Asn	Leu	Leu	Ser	Lys	Phe	Xaa	Leu	Ile	Ala	Lys

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Phe	Leu	Lys	Ser	Asp	Ser	Leu	Cys	Leu	Met	Glu	Gly	Arg	Arg	Phe	Arg	
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Ala	Gln	Pro	Thr	Leu	Pro	Ser	Ala	His	Leu	Leu	Ala	Met	His	Ile	Gln	
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Gln	Leu	Glu	Thr	Gly	Gly	Phe	Thr	Met	Thr	Asn	Gly	Ala	His	Arg	Trp	
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Ser	Lys	Leu	Arg	Asn	Ile	Ala	Lys	Val	Val	Ser	Gln	Val	His	Ala	Phe	
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Ala	Ala	Asp	Ser	Arg	Ala	Asn	Phe	His	Gln	Val	Ser	Ser	Glu	Lys	His	
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<210> 4965

<211> 1474

<212> DNA

<213> Homo sapiens

<400> 4965

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240	cctacagccc	tttttagtgac	caggggcatt	tcctaccctc	acttgatctc
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<210> 4966

<211> 212

<212> PRT

<213> Homo sapiens

<400> 4966

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 35 40 45
 Asn Asn Ile Ala Asn Leu Lys Ile Ser Leu Leu Asn Lys Asp Lys Ile
 50 55 60
 Glu Leu Asp Ser Ser Ser Pro Ala Ser Lys Glu Asn Glu Glu Lys Val
 65 70 75 80
 Cys Leu Glu Tyr Asn Glu Glu Leu Glu Lys Leu Cys Glu Glu Leu Gln
 85 90 95
 Ala Thr Leu Asp Gly Leu Thr Lys Ile Gln Val Lys Met Glu Lys Leu
 100 105 110
 Ser Ser Thr Thr Lys Gly Ile Cys Glu Leu Glu Asn Tyr His Tyr Gly
 115 120 125
 Glu Glu Ser Lys Arg Pro Pro Leu Phe His Thr Trp Pro Thr Thr His
 130 135 140
 Phe Tyr Glu Val Ser His Lys Leu Leu Glu Met Tyr Arg Lys Glu Leu
 145 150 155 160
 Leu Leu Lys Arg Thr Val Ala Lys Glu Leu Ala His Thr Gly Asp Pro

165 170 175
 Asp Leu Thr Leu Ser Tyr Leu Ser Met Trp Leu His Gln Pro Tyr Val
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 195 200 205
 His Arg Ala Leu
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<210> 4967
 <211> 550
 <212> DNA
 <213> Homo sapiens

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<210> 4968
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 <212> PRT
 <213> Homo sapiens

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<210> 4969
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 <212> DNA
 <213> Homo sapiens

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<210> 4970

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4970

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Pro Phe Leu Pro Gly Val Phe Gly Tyr Ala Val Asn Pro Gln Ala Ala			
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Pro Pro Ala Pro Pro Thr Pro Pro Pro Pro Thr Leu Pro Pro Pro Ile			
65	70	75	80
Pro Pro Lys Gly Glu Gly Glu Arg Ala Gly Val Glu Arg Thr Gln Lys			
	85	90	95
Gly Asp Val Gly Xaa Asn Pro Gly Ala Gln Ser Pro Phe His Gln Met			
	100	105	110
Pro Pro Ser Leu Asn Pro Pro Pro Leu Pro Ala Pro Trp Pro Pro Cys			
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<210> 4971

<211> 2939

<212> DNA

<213> Homo sapiens

<400> 4971

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<211> 558

<212> PRT

<213> Homo sapiens

<400> 4972

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		20					25					30			
Lys	Thr	Gln	Ala	Glu	Ala	Val	Ala	Glu	Ala	Glu	Leu	Lys	Thr	Glu	Ser
	35					40					45				
Val	Thr	Gln	Ala	Lys	Ala	Gly	Asp	Gly	Ala	Met	Thr	Arg	Thr	His	Thr
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Val	Thr	Tyr	Arg	Glu	Ala	Met	Ala	Val	Thr	Arg	Glu	Val	Ile	Lys	Val
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Glu	Asp	Thr	Thr	Lys	Thr	Arg	Val	Met	Val	Glu	Thr	Lys	Thr	Lys	Pro
		85						90				95			
Leu	Ala	Glu	Arg	Ser	Ile	Val	Pro	Gln	Thr	Lys	Ser	Lys	Ala	Met	Pro
		100					105					110			
Met	Ser	Arg	Val	Ser	Thr	Val	Thr	Lys	Ser	Glu	Val	Lys	Val	Val	Ala
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	210				215					220					
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Glu Lys Tyr Gly Pro Asn Pro Lys Ala Cys His Cys Lys Ser Arg Gly
                290                295                300
Phe Ser Leu Glu Pro Lys Glu Phe Asp Lys Leu Val Ala Leu Leu Lys
305                310                315                320
Leu Thr Lys Asp Pro Phe Ile His Glu Ile Ala Thr Met Ile Met Gly
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Ile Ser Pro Ala Tyr Pro Phe Thr Gln Asp Ile Ile His Asp Val Gly
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Ile Thr Val Met Ile Glu Asn Leu Val Asn Asn Pro Asn Val Lys Glu
                355                360                365
His Pro Gly Ala Leu Ser Met Val Asp Asp Ser Ser Glu Ser Ser Glu
                370                375                380
Glu Pro Lys Ser Gly Glu Ser Tyr Ile His Gln Val Cys Lys Gly Ile
385                390                395                400
Ile Ser Cys Pro Leu Asn Ser Pro Val Gln Leu Ala Gly Leu Lys Leu
                405                410                415
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Tyr Ile Pro Asp Phe Leu Thr Leu Leu Asn Lys Gly Ser Val Lys Thr
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Lys Phe Tyr Val Leu Lys Val Phe Ser Cys Leu Ser Lys Asn His Ala
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<213> Homo sapiens

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 <213> Homo sapiens

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 35 40 45
 Gly Thr Arg Ile Ile Glu Val Ser Gly Gln Lys Ile Lys Leu Gln Ile
 50 55 60
 Trp Asp Thr Ala Gly Gln Glu Arg Phe Arg Ala Val Thr Arg Ser Tyr
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 Tyr Arg Gly Ala Ala Gly Ala Leu Met Val Tyr Asp Ile Thr Arg Arg
 85 90 95
 Ser Thr Tyr Asn His Leu Ser Ser Trp Leu Thr Asp Ala Arg Asn Leu
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 130 135 140
 Glu Asn Gly Leu Leu Phe Leu Glu Ala Ser Ala Lys Thr Gly Glu Asn
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 Val Glu Asp Ala Phe Leu Glu Ala Ala Lys Lys Ile Tyr Gln Asn Ile
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<211> 298

<212> PRT

<213> Homo sapiens

<400> 4976

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Asp	Arg	Lys	Arg	Thr	Trp	Leu	Gly	Leu	Leu	Glu	Glu	Ala	Tyr	Thr	Leu
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Gln	Ile	Val	Asn	Ser	Lys	Asn	Tyr	Leu	Ile	Gly	Lys	Ile	Lys	Ala	Met
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      180              185              190
Arg Leu Met Asn Leu Pro Leu His Ser Val Lys Met Glu Pro Cys Tyr
      195              200              205
Thr Lys Val Asn Leu Leu His Glu Arg Leu Gln Asp Leu Lys Ser Arg
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Phe Arg Phe Pro His Ile Asp Leu Val Val Gln Arg Thr Gln Asn Tyr
225              230              235              240
Met Gln Glu Leu Met Glu Asn Ala Val Phe Thr Phe Glu Gln Leu Leu
      245              250              255
Ser Pro His Leu Gln Gly Glu Ala Ser Lys Thr Ala Phe Ser Ile Glu
      260              265              270
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<210> 4977

<211> 3309

<212> DNA

<213> Homo sapiens

<400> 4977

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<211> 792

<212> PRT

<213> Homo sapiens

<400> 4978

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Glu	Thr	Thr	Thr	Ser	Thr	Ile	Ile	Thr	Thr	Thr	Val	Ile	Thr	Thr	Glu
			35				40					45			
Gln	Ala	Pro	Ala	Leu	Cys	Ser	Val	Ser	Phe	Ser	Asn	Pro	Glu	Gly	Tyr
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Ile	Asp	Ser	Ser	Asp	Tyr	Pro	Leu	Leu	Pro	Leu	Asn	Asn	Phe	Leu	Glu
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Cys	Thr	Tyr	Asn	Val	Thr	Val	Tyr	Thr	Gly	Tyr	Gly	Val	Glu	Leu	Gln
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 <213> Homo sapiens

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<210> 4980

<211> 266

<212> PRT

<213> Homo sapiens

<400> 4980

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 35 40 45
 Val Gly Pro Pro Phe Leu Met Asp Glu Asn Ser Trp Phe Asn Lys Cys
 50 55 60
 Lys Arg Val Lys Gln Lys Tyr Gln Leu Thr Leu Glu Gln Lys Gly Tyr
 65 70 75 80
 Leu Glu Glu Leu Leu Arg Leu Arg Glu Asn Gln Leu Ser Glu Ser Val
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 Ser Gln Asn Lys Ile Leu Leu Gln Arg Ile Glu Asp Ser Asp Leu Ala
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 His Lys Leu Glu Lys Glu Gln Leu Glu Tyr Ile Ile Val Glu Leu Gln
 115 120 125
 Asp Gln Leu Thr Val Leu Lys Asn Asn Asp Leu Arg Ser Arg Gln Glu
 130 135 140
 Leu Thr Ala His Leu Thr Asn Gln Trp Pro Ser Pro Gly Ala Leu Asp
 145 150 155 160
 Val Asn Ala Val Ala Leu Asp Thr Leu Leu Tyr Arg Lys His Asn Lys
 165 170 175
 Gln Trp Lys Ser Tyr Gln Ser Leu Asp Gln Leu Ser Ala Glu Val Ser
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 Leu Ser Gln Thr Ser Leu Asp Pro Gly Gln Ser Gln Glu Gly Asp Gly
 195 200 205
 Lys Gln Asp Thr Leu Asn Val Met Ser Glu Gly Lys Glu Asp Thr Pro
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<210> 4981

<211> 1902

<212> DNA

<213> Homo sapiens

<400> 4981

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<211> 73
 <212> PRT
 <213> Homo sapiens

<400> 4982
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 Gln Pro Pro Ser Pro Arg Phe Lys Arg Phe Ser Cys Leu Leu Leu Ser
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 Phe Ser Arg Asp Gly Val Ser Pro Cys
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<210> 4983
 <211> 1418
 <212> DNA
 <213> Homo sapiens

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<210> 4984

<211> 256

<212> PRT

<213> Homo sapiens

<400> 4984

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Gln	Asp	Ser	Gly	Thr	Lys	Ala	Phe	Cys	Asp	Val	Ala	Leu	His	Gly	Pro
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Lys	Gln	Leu	Leu	Ser	Gly	Asn	Leu	Lys	Glu	Gly	Leu	Gln	Tyr	Leu	Gln
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<210> 4985

<211> 5695

<212> DNA

<213> Homo sapiens

<400> 4985

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 5280
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 5340
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 5400
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 5460
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 5580
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<210> 4986

<211> 1239

<212> PRT

<213> Homo sapiens

<400> 4986

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			20				25					30			
Met	Asn	Thr	Lys	Asp	Thr	Thr	Glu	Val	Ala	Glu	Asn	Ser	His	His	Leu
			35				40				45				
Lys	Ile	Phe	Leu	Pro	Lys	Lys	Leu	Leu	Glu	Cys	Leu	Pro	Arg	Cys	Pro
			50			55				60					
Leu	Leu	Pro	Pro	Glu	Arg	Leu	Arg	Trp	Asn	Thr	Asn	Glu	Glu	Ile	Ala
					70				75					80	
Ser	Tyr	Leu	Ile	Thr	Phe	Glu	Lys	His	Asp	Glu	Trp	Leu	Ser	Cys	Ala

				85				90				95			
Pro	Lys	Thr	Arg	Pro	Gln	Asn	Gly	Ser	Ile	Ile	Leu	Tyr	Asn	Arg	Lys
				100				105				110			
Lys	Val	Lys	Tyr	Arg	Lys	Asp	Gly	Tyr	Leu	Trp	Lys	Lys	Arg	Lys	Asp
				115				120				125			
Gly	Lys	Thr	Thr	Arg	Glu	Asp	His	Met	Lys	Leu	Lys	Val	Gln	Gly	Met
				130				135				140			
Glu	Pro	Val	Ser	Trp	Gln	Cys	Leu	Tyr	Gly	Cys	Tyr	Val	His	Ser	Ser
145				150				155				160			
Ile	Val	Pro	Thr	Phe	His	Arg	Arg	Cys	Tyr	Trp	Leu	Leu	Gln	Asn	Pro
				165				170				175			
Asp	Ile	Val	Leu	Val	His	Tyr	Leu	Asn	Val	Pro	Ala	Leu	Glu	Asp	Cys
				180				185				190			
Gly	Lys	Gly	Cys	Ser	Pro	Ile	Phe	Cys	Ser	Ile	Ser	Ser	Asp	Arg	Arg
				195				200				205			
Glu	Trp	Leu	Lys	Trp	Ser	Arg	Glu	Glu	Leu	Leu	Gly	Gln	Leu	Lys	Pro
210				215				220				225			
Met	Phe	His	Gly	Ile	Lys	Trp	Ser	Cys	Gly	Asn	Gly	Thr	Glu	Glu	Phe
				230				235				240			
Ser	Val	Glu	His	Leu	Val	Gln	Gln	Ile	Leu	Asp	Thr	His	Pro	Thr	Lys
				245				250				255			
Pro	Ala	Pro	Arg	Thr	His	Ala	Cys	Leu	Cys	Ser	Gly	Gly	Leu	Gly	Ser
				260				265				270			
Gly	Ser	Leu	Thr	His	Lys	Cys	Ser	Ser	Thr	Lys	His	Arg	Ile	Ile	Ser
				275				280				285			
Pro	Lys	Val	Glu	Pro	Arg	Ala	Leu	Thr	Leu	Thr	Ser	Ile	Pro	His	Pro
				290				295				300			
His	Pro	Pro	Glu	Pro	Pro	Pro	Leu	Ile	Ala	Pro	Leu	Pro	Pro	Glu	Leu
305				310				315				320			
Pro	Lys	Ala	His	Thr	Ser	Pro	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
				325				330				335			
Gly	Phe	Ala	Glu	Pro	Leu	Glu	Ile	Arg	Pro	Ser	Pro	Pro	Thr	Ser	Arg
				340				345				350			
Gly	Gly	Ser	Ser	Arg	Gly	Gly	Thr	Ala	Ile	Leu	Leu	Leu	Thr	Gly	Leu
				355				360				365			
Glu	Gln	Arg	Ala	Gly	Gly	Leu	Thr	Pro	Thr	Arg	His	Leu	Ala	Pro	Gln
370				375				380				385			
Ala	Asp	Pro	Arg	Pro	Ser	Met	Ser	Leu	Ala	Val	Val	Val	Gly	Thr	Glu
385				390				395				400			
Pro	Ser	Ala	Pro	Pro	Ala	Pro	Pro	Ser	Pro	Ala	Phe	Asp	Pro	Asp	Arg
				405				410				415			
Phe	Leu	Asn	Ser	Pro	Gln	Arg	Gly	Gln	Thr	Tyr	Gly	Gly	Gly	Gln	Gly
				420				425				430			
Val	Ser	Pro	Asp	Phe	Pro	Glu	Ala	Glu	Ala	Ala	His	Thr	Pro	Cys	Ser
				435				440				445			
Ala	Leu	Glu	Pro	Ala	Ala	Ala	Leu	Glu	Pro	Gln	Ala	Ala	Ala	Arg	Gly
450				455				460				465			
Pro	Pro	Pro	Gln	Ser	Val	Ala	Gly	Gly	Arg	Arg	Gly	Asn	Cys	Phe	Phe
				470				475				480			
Ile	Gln	Asp	Asp	Asp	Ser	Gly	Glu	Glu	Leu	Lys	Gly	His	Gly	Ala	Ala
				485				490				495			
Pro	Pro	Ile	Pro	Ser	Pro	Pro	Pro	Ser	Pro	Pro	Pro	Ser	Pro	Ala	Pro
				500				505				510			
Leu	Glu	Pro	Ser	Ser	Arg	Val	Gly	Arg	Gly	Glu	Ala	Leu	Phe	Gly	Gly

515		520		525
Pro Val Gly Ala Ser Glu Leu Glu	Pro Phe Ser Leu Ser Ser Phe Pro			
530	535	540		
Asp Leu Met Gly Glu Leu Ile Ser Asp Glu Ala Pro Ser Ile Pro Ala				
545	550	555	560	
Pro Thr Pro Gln Leu Ser Pro Ala Leu Ser Thr Ile Thr Asp Phe Ser				
565	570	575		
Pro Glu Trp Ser Tyr Pro Glu Gly Gly Val Lys Val Leu Ile Thr Gly				
580	585	590		
Pro Trp Thr Glu Ala Ala Glu His Tyr Ser Cys Val Phe Asp His Ile				
595	600	605		
Ala Val Pro Ala Ser Leu Val Gln Pro Gly Val Leu Arg Cys Tyr Cys				
610	615	620		
Pro Ala His Glu Val Gly Leu Val Ser Leu Gln Val Ala Gly Arg Glu				
625	630	635	640	
Gly Pro Leu Ser Ala Ser Val Leu Phe Glu Tyr Arg Ala Arg Arg Phe				
645	650	655		
Leu Ser Leu Pro Ser Thr Gln Leu Asp Trp Leu Ser Leu Asp Asp Asn				
660	665	670		
Gln Phe Arg Met Ser Ile Leu Glu Arg Leu Glu Gln Met Glu Lys Arg				
675	680	685		
Met Ala Glu Ile Ala Ala Ala Gly Gln Val Pro Cys Gln Gly Pro Asp				
690	695	700		
Ala Pro Pro Val Gln Asp Glu Gly Gln Gly Pro Gly Phe Glu Ala Arg				
705	710	715	720	
Val Val Val Leu Val Glu Ser Met Ile Pro Arg Ser Thr Trp Lys Gly				
725	730	735		
Pro Glu Arg Leu Ala His Gly Ser Pro Phe Arg Gly Met Ser Leu Leu				
740	745	750		
His Leu Ala Ala Ala Gln Gly Tyr Ala Arg Leu Ile Glu Thr Leu Ser				
755	760	765		
Gln Trp Arg Ser Val Glu Thr Gly Ser Leu Asp Leu Glu Gln Glu Val				
770	775	780		
Asp Pro Leu Asn Val Asp His Phe Ser Cys Thr Pro Leu Met Trp Ala				
785	790	795	800	
Cys Ala Leu Gly His Leu Glu Ala Ala Val Leu Leu Phe Arg Trp Asn				
805	810	815		
Arg Gln Ala Leu Ser Ile Pro Asp Ser Leu Gly Arg Leu Pro Leu Ser				
820	825	830		
Val Ala His Ser Arg Gly His Val Arg Leu Ala Arg Cys Leu Glu Glu				
835	840	845		
Leu Gln Arg Gln Glu Pro Ser Val Glu Pro Pro Phe Ala Leu Ser Pro				
850	855	860		
Pro Ser Ser Ser Pro Asp Thr Gly Leu Ser Ser Val Ser Ser Pro Ser				
865	870	875	880	
Glu Leu Ser Asp Gly Thr Phe Ser Val Thr Ser Ala Tyr Ser Ser Ala				
885	890	895		
Pro Asp Gly Ser Pro Pro Pro Ala Pro Leu Pro Ala Ser Glu Met Thr				
900	905	910		
Met Glu Asp Met Ala Pro Gly Gln Leu Ser Ser Gly Val Pro Glu Ala				
915	920	925		
Pro Leu Leu Leu Met Asp Tyr Glu Ala Thr Asn Ser Lys Gly Pro Leu				
930	935	940		
Ser Ser Leu Pro Ala Leu Pro Pro Ala Ser Asp Asp Gly Ala Ala Pro				

945 950 955 960
 Glu Asp Ala Asp Ser Pro Gln Ala Val Asp Val Ile Pro Val Asp Met
 965 970 975
 Ile Ser Leu Ala Lys Gln Ile Ile Glu Ala Thr Pro Glu Arg Ile Lys
 980 985 990
 Arg Glu Asp Phe Val Gly Leu Pro Glu Ala Gly Ala Ser Met Arg Glu
 995 1000 1005
 Arg Thr Gly Ala Val Gly Leu Ser Glu Thr Met Ser Trp Leu Ala Ser
 1010 1015 1020
 Tyr Leu Glu Asn Val Asp His Phe Pro Ser Ser Thr Pro Pro Ser Glu
 1025 1030 1035 1040
 Leu Pro Phe Glu Arg Gly Arg Leu Ala Val Pro Ser Ala Pro Ser Trp
 1045 1050 1055
 Ala Glu Phe Leu Ser Ala Ser Thr Ser Gly Lys Met Glu Ser Asp Phe
 1060 1065 1070
 Ala Leu Leu Thr Leu Ser Asp His Glu Gln Arg Glu Leu Tyr Glu Ala
 1075 1080 1085
 Ala Arg Val Ile Gln Thr Ala Phe Arg Lys Tyr Lys Gly Arg Arg Leu
 1090 1095 1100
 Lys Glu Gln Gln Glu Val Ala Ala Ala Val Ile Gln Arg Cys Tyr Arg
 1105 1110 1115 1120
 Lys Tyr Lys Gln Leu Thr Trp Ile Ala Leu Lys Phe Ala Leu Tyr Lys
 1125 1130 1135
 Lys Met Thr Gln Ala Ala Ile Leu Ile Gln Ser Lys Phe Arg Ser Tyr
 1140 1145 1150
 Tyr Glu Gln Lys Arg Phe Gln Gln Ser Arg Arg Ala Ala Val Leu Ile
 1155 1160 1165
 Gln Gln His Tyr Arg Ser Tyr Arg Arg Arg Pro Gly Pro Pro His Arg
 1170 1175 1180
 Thr Ser Ala Thr Leu Pro Ala Arg Asn Lys Gly Ser Phe Leu Thr Lys
 1185 1190 1195 1200
 Lys Gln Asp Gln Ala Ala Arg Lys Ile Met Arg Phe Leu Arg Arg Cys
 1205 1210 1215
 Arg His Arg Met Arg Glu Leu Lys Gln Asn Gln Glu Leu Glu Gly Leu
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<210> 4987

<211> 357

<212> DNA

<213> Homo sapiens

<400> 4987

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 120
 ggaggagtgg gagggaggct ccttggtggtg cgagtcctt cgcctctagt ggtctctgct
 180
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 240
 actttttctc tgagtcacaa gaagacgaat atacgctgca atgacgcagt gagggaagaa
 300

gtcgccttgc acccatatgg ctgctgagga tgggagagat ggacgcggtc ggagaga
357

<210> 4988
<211> 105
<212> PRT
<213> Homo sapiens

<400> 4988
Met Gly Ala Arg Arg Leu Leu Pro Ser Leu Arg His Cys Ser Val Tyr
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20 25 30
Phe Pro Leu Cys Phe Leu Gly Thr Ala Phe Pro Gln Gly Glu Gln Arg
35 40 45
Pro Leu Glu Ala Lys Gly Leu Ala Thr Gln Gly Ala Ser Leu Pro Leu
50 55 60
Leu Pro Thr Val Thr Cys Val Ser Ile Lys Ser Trp Lys Met Glu Cys
65 70 75 80
Pro His Gln Gly Asp Gly Val Thr Thr Glu Ala Gly Ser Glu Leu Pro
85 90 95
Gln Leu Leu Gln Ala Pro Trp Pro Arg
100 105

<210> 4989
<211> 1723
<212> DNA
<213> Homo sapiens

<400> 4989
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120
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180
tgggcacat acccagctac agccgagccc agcagctcct cctggtgaaa ctgcagcgcc
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300
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360
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420
agtataagcg gatgaacagc aacgagcggg tccgcatcat ctcggggagt ccgctaggga
480
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540
accctgagag cgagctgggc aagaacctca gcctcatccc ctacagcctg gtacgcgcct
600
tctactgca ggcgcgcgg cccgtgctct tcacaccac cgtgctggcc aagacgctgg
660
tgcagaggct gctcaactcg ggaggtgccca tggagtccac catctgcaag tcagatatcg
720

tcacaagaga tgagttcctc agaaggcaga agacggagac catcatctac tcccagagaga
 780
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 840
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 900
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 960
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 1020
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 1080
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 1140
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 1200
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 1260
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 1380
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 1560
 cactcacat aaacacatcc ccaggcagga cagatcgggg aaggggtgtg taccaggcta
 1620
 tgatttctct tgcattaaaa tgtattatta tttctttgtt tcgaccttt gtttgtgaac
 1680
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 1723

<210> 4990

<211> 54

<212> PRT

<213> Homo sapiens

<400> 4990

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			20					25					30		
Glu	Gln	Ala	Ser	Phe	Leu	Ala	Ser	Ser	Phe	Ser	Ser	Ser	Ala	Gly	Pro
			35				40					45			
Arg	Thr	Ser	Ile	Ser	Gly										
50															

<210> 4991

<211> 828

<212> DNA

<213> Homo sapiens

<400> 4991
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 120
 atcaagctgc agcagcagat gaaggccaag gacctgcaac gctgcgagct gctggccagg
 180
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 240
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 300
 aaggtgaagg acgacaacta caacttagcc atgcgctacg cacagctcag tgaggagaag
 360
 aacatggcgg tcatgaggag ccgagacctc caactcgaga tcgatcagct aaagcaccgg
 420
 ttgaataaga tggaggagga atgtaagctg gagagaaatc agtctctaaa actgaagaat
 480
 gacattgaaa atcggcccaa gaaggagcag gttctggaac tggagcggga gaatgaaatg
 540
 ctgaagacca aaaaccagga gctgcagtcc atcatccagg ccgggaagcg cagcctgcca
 600
 gactcagaca aggccatcct ggacatcttg gaacacgacc gcaaggaggc cctggaggac
 660
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 720
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 780
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 828

<210> 4992
 <211> 69
 <212> PRT
 <213> Homo sapiens

<400> 4992
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 20 25 30
 Glu Leu Arg Asp Lys Tyr Leu Glu Glu Lys Glu Asp Leu Glu Leu Lys
 35 40 45
 Cys Ser Thr Leu Gly Lys Asp Cys Glu Met Tyr Lys His Arg Met Asn
 50 55 60
 Thr Val Met Leu Gln
 65

<210> 4993
 <211> 837
 <212> DNA
 <213> Homo sapiens

<400> 4993

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 120
 ccagtcagga gagagagact gagaaggcta tggatcgact agcccgtgga acacagagca
 180
 ttcctaata gactcctgcc cgggggtgagg gcacccattc tgaagaggaa ggctttgcc
 240
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 300
 gtccacccaa ggaacagcct ggcatcttt ttaatgagga ctgggactcg gaggtaaag
 360
 cagatcaagg gaatccatat gatgctgacg acatccagga gagcatttct caagagctta
 420
 aaccttgggt gtgctgtgcc ccacaaggag acatgatcta tgacccagc tggcaccatc
 480
 cgcctccact gataccctat tattccaaga tggctttga aacaggacag ttgacgatg
 540
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 600
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 660
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 720
 ccagtctgtt gttgttctta atgggtcct ccttgaaatg tgtgtgtgtt tgtgtcaaga
 780
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 837

<210> 4994

<211> 133

<212> PRT

<213> Homo sapiens

<400> 4994

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Ala	Arg	Gly	Glu	Gly	Thr	His	Ser	Glu	Glu	Gly	Phe	Ala	Met	Asp	
		20						25				30			
Glu	Glu	Asp	Ser	Asp	Gly	Glu	Leu	Asn	Thr	Trp	Glu	Leu	Ser	Glu	Gly
		35				40						45			
Thr	Asn	Cys	Pro	Pro	Lys	Glu	Gln	Pro	Gly	Asp	Leu	Phe	Asn	Glu	Asp
		50				55				60					
Trp	Asp	Ser	Glu	Leu	Lys	Ala	Asp	Gln	Gly	Asn	Pro	Tyr	Asp	Ala	Asp
65				70				75						80	
Asp	Ile	Gln	Glu	Ser	Ile	Ser	Gln	Glu	Leu	Lys	Pro	Trp	Val	Cys	Cys
		85						90					95		
Ala	Pro	Gln	Gly	Asp	Met	Ile	Tyr	Asp	Pro	Ser	Trp	His	His	Pro	Pro
		100						105					110		
Pro	Leu	Ile	Pro	Tyr	Tyr	Ser	Lys	Met	Val	Phe	Glu	Thr	Gly	Gln	Phe
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Asp	Asp	Ala	Glu	Asp											
		130													

<210> 4995
<211> 1595
<212> DNA
<213> Homo sapiens

<400> 4995
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tggagcccag ggctggccct ggaatgcagt cctcagagcg gctgtgctca taggtcagaa
240
cgggaaacag ccgtacgcat ctcccaggag attgggaacc ttatgaagga aatcgagacc
300
cttgtggaag agaagaccaa ggagtcactg gatgtgagca gactgacccg ggaagggtggc
360
cccctgctgt atgaaggcat cagtctcacc atgaactcca aactcctgaa tggttcccag
420
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480
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540
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600
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660
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720
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840
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900
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960
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1020
gccatcgccc tgtggttcac cctggaccct cgacacagcg agcgggacag ggtgcaggca
1080
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1380
cttgagtggt acatgaccag acaccgcacc ccctggatct ggctgagggc tcaggacaca
1440

ggcccagcca cccccagggg cctccacagg ccgctgcata acagcgatac agtacttaag
 1500
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 1560
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 1595

<210> 4996
 <211> 217
 <212> PRT
 <213> Homo sapiens

<400> 4996
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 35 40 45
 Val Met Asp Gly Val Ile Ser Asp His Glu Cys Gln Glu Leu Gln Arg
 50 55 60
 Leu Thr Asn Val Ala Ala Thr Ser Gly Asp Gly Tyr Arg Gly Gln Thr
 65 70 75 80
 Ser Pro His Thr Pro Asn Glu Lys Phe Tyr Gly Val Thr Val Phe Lys
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 Phe Arg Leu Asp Thr Pro Leu Tyr Phe Ser Tyr Ser His Leu Val Cys
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 Pro Val His Val Asp Asn Cys Ile Leu Asn Ala Glu Thr Leu Val Cys
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 Val Lys Glu Pro Pro Ala Tyr Thr Phe Arg Asp Tyr Ser Ala Ile Leu
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<210> 4997
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 <213> Homo sapiens

<400> 4997
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<210> 4998
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 Thr Leu Thr Pro Leu Gly Leu Cys Pro Ala Gly Glu Val Phe Asp Tyr
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 Lys Leu Asp Thr Phe Cys Gly Ser Pro Pro Tyr Ala Ala Pro Glu Leu
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 Phe Gln Gly Lys Lys Tyr Asp Gly Pro Glu Val Asp Ile Trp Ser Leu
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Gln	Lys	Tyr	Asn	Glu	Val	Thr	Ala	Thr	Tyr	Leu	Leu	Leu	Gly	Arg	Lys		
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<212> DNA
<213> Homo sapiens
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<210> 5000

<211> 307

<212> PRT

<213> Homo sapiens

<400> 5000

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225		230		235	240
Val Thr Tyr Ile Lys Lys Trp Asp Ile Cys Ala Gly Asn Ala Ile Leu					
	245		250		255
Lys Ala Leu Gly Gly His Met Thr Thr Leu Ser Gly Glu Glu Ile Ser					
	260		265		270
Tyr Thr Gly Ser Asp Gly Ile Glu Gly Gly Leu Leu Ala Ser Ile Arg					
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<210> 5001

<211> 3427

<212> DNA

<213> Homo sapiens

<400> 5001

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<211> 335

<212> PRT

<213> Homo sapiens

<400> 5002

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			20					25					30		
Ile	Val	Leu	Ile	Val	Glu	Gly	Thr	Glu	Phe	Pro	Cys	His	Lys	Met	Val
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<210> 5003

<211> 3729

<212> DNA

<213> Homo sapiens

<400> 5003

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<211> 642
 <212> PRT
 <213> Homo sapiens

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 35 40 45
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 50 55 60
 Ser Gly Glu Lys Leu Lys Val Val Asn Glu Arg Ala Thr Leu Phe Arg
 65 70 75 80
 Ile Thr Ser Asn Ala Met Ile Asn Ala Cys Arg Asp Phe Leu Glu Leu
 85 90 95
 Ala Glu Ile His Ser Arg Lys Trp Gln Arg Ala Leu Gln Tyr Glu Gln
 100 105 110
 Glu Gln Arg Val His Leu Glu Glu Thr Ile Glu Gln Leu Ala Lys Gln
 115 120 125
 His Asn Ser Leu Glu Arg Ala Phe His Ser Ala Pro Gly Arg Pro Ala
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 Asn Pro Ser Lys Ser Phe Ile Glu Gly Ser Leu Leu Thr Pro Lys Gly
 145 150 155 160
 Glu Asp Ser Glu Glu Asp Glu Asp Thr Glu Tyr Phe Asp Ala Met Glu
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 Asp Ser Thr Ser Phe Ile Thr Val Ile Thr Glu Ala Lys Glu Asp Ser
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 Arg Lys Ala Glu Gly Ser Thr Gly Thr Ser Ser Val Asp Trp Ser Ser
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 Ala Asp Asn Val Leu Asp Gly Ala Ser Leu Val Pro Lys Gly Ser Ser
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 Lys Val Lys Arg Arg Val Arg Ile Pro Asn Lys Pro Asn Tyr Ser Leu
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 Ile Pro Met Pro Val Asn Phe Asn Glu Pro Leu Ser Met Leu Gln Arg
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 Tyr Val Phe Ser Lys His Gly Trp Ser Leu Trp Gln Glu Ile Thr Ile
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 370 375 380
 Ile His Leu Glu Phe Gln Ala Ser Gly Asn His Tyr Val Trp Arg Lys

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Gln Ser Gly Asp Ile Glu Ile Val Asn His Lys Thr Asn Asp Arg Cys
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Gln Leu Lys Phe Leu Pro Tyr Ser Tyr Phe Ser Lys Glu Ala Ala Arg
          435          440          445
Lys Val Thr Gly Val Val Ser Asp Ser Gln Gly Lys Ala His Tyr Val
          450          455          460
Leu Ser Gly Ser Trp Asp Glu Gln Met Glu Cys Ser Lys Val Met His
465          470          475          480
Ser Ser Pro Ser Ser Pro Ser Ser Asp Gly Lys Gln Lys Thr Val Tyr
          485          490          495
Gln Thr Leu Ser Ala Lys Leu Leu Trp Lys Lys Tyr Pro Leu Pro Glu
          500          505          510
Asn Ala Glu Asn Met Tyr Tyr Phe Ser Glu Leu Ala Leu Thr Leu Asn
          515          520          525
Glu His Glu Glu Gly Val Ala Pro Thr Asp Ser Arg Leu Arg Pro Asp
          530          535          540
Gln Arg Leu Met Glu Lys Gly Arg Trp Asp Glu Ala Asn Thr Glu Lys
545          550          555          560
Gln Arg Leu Glu Glu Lys Gln Arg Leu Ser Arg Arg Arg Arg Leu Glu
          565          570          575
Ala Cys Gly Pro Gly Ser Ser Cys Ser Ser Glu Glu Gly Glu Ala Gly
          580          585          590
Arg Glu Gly Arg Pro Gly Gly Glu Glu Arg Gly Ala Arg Val Gly Val
          595          600          605
Pro Gln Gly Arg Ile Pro Gly Glu Gln Ala Thr Ser Pro Pro Thr Ser
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Pro Leu Cys Leu Pro Ser Arg Glu Gly Gly Gly Cys Leu His Ala Thr
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Val Val

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<210> 5005
 <211> 1120
 <212> DNA
 <213> Homo sapiens

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240
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420

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<210> 5006

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5006

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		20					25						30		
Arg	Gly	Ser	Gly	His	Val	Thr	Val	Phe	Gly	Leu	Ser	Asn	Lys	Phe	Glu
		35				40						45			
Ser	Glu	Phe	Pro	Ser	Ser	Leu	Thr	Gly	Lys	Val	Ala	Pro	Glu	Glu	Phe
	50				55					60					
Lys	Ala	Ser	Ile	Asn	Arg	Val	Asn	Ser	Cys	Leu	Lys	Lys	Asn	Leu	Pro
65				70					75					80	
Val	Asn	Val	Arg	Trp	Leu	Leu	Cys	Gly	Cys	Leu	Cys	Cys	Cys	Cys	Thr
			85					90						95	
Leu	Gly	Cys	Ser	Met	Trp	Pro	Val	Ile	Cys	Leu	Ser	Lys	Arg	Thr	Arg
			100				105						110		
Arg	Ser	Ile	Glu	Lys	Leu	Leu	Glu	Trp	Glu	Asn	Asn	Arg	Leu	Tyr	His
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Lys	Leu	Cys	Leu	His	Trp	Arg	Leu	Ser	Lys	Arg	Lys	Cys	Glu	Thr	Asn
	130					135					140				
Asn	Met	Met	Glu	Tyr	Val	Ile	Leu	Ile	Glu	Phe	Leu	Pro	Lys	Thr	Pro
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<210> 5007
<211> 2165
<212> DNA
<213> Homo sapiens

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<211> 487

<212> PRT

<213> Homo sapiens

<400> 5008

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			20					25					30		
Ser	Met	Ala	Lys	Ile	His	Ala	Arg	Asn	Gly	Asp	Leu	Ser	Glu	Ala	Ala
		35				40					45				
Met	Cys	Tyr	Ile	His	Ile	Ala	Ala	Leu	Ile	Ala	Glu	Tyr	Leu	Lys	Arg
	50				55					60					
Lys	Gly	Met	Phe	Ser	Met	Gly	Trp	Pro	Ala	Val	Leu	Ser	Ile	Thr	Pro
65				70					75					80	
Asn	Ile	Lys	Glu	Glu	Gly	Ala	Met	Lys	Glu	Asp	Ser	Gly	Met	Gln	Asp
			85					90					95		
Thr	Pro	Tyr	Asn	Glu	Asn	Ile	Leu	Val	Glu	Gln	Leu	Tyr	Met	Cys	Val
			100				105						110		
Glu	Phe	Leu	Trp	Lys	Ser	Glu	Arg	Tyr	Glu	Xaa	Ser	Leu	Leu	Met	Ser
	115					120						125			
Thr	Ser	Pro	Ser	Leu	Leu	Ser	Leu	Arg	Asn	Asn	Glu	Thr	Ser	Lys	Asn
	130					135				140					
Ser	Asp	Leu	Tyr	Tyr	Asp	Ile	His	Arg	Ser	Tyr	Leu	Lys	Val	Ala	Glu
145					150					155				160	
Val	Val	Asn	Ser	Glu	Ala	Ala	Val	Trp	Ser	Leu	Leu	Ser	Cys	Gly	Ile

Tyr Gly Gln Gly Phe Phe Glu Glu Glu Glu Gly Lys Glu Tyr Ile Tyr
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 180 185 190
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 195 200 205
 Asp Ser Asn Lys Val Asn Pro Lys Asp Leu Asp Pro Lys Tyr Ala Tyr
 210 215 220
 Ile Gln Val Thr Tyr Val Thr Pro Phe Phe Glu Glu Lys Glu Ile Glu
 225 230 235 240
 Asp Arg Lys Thr Asp Phe Glu Met His His Asn Ile Asn Arg Phe Val
 245 250 255
 Phe Glu Thr Pro Phe Thr Leu Ser Gly Lys Lys His Gly Gly Val Ala
 260 265 270
 Glu Gln Cys Lys Arg Arg Thr Ile Leu Thr Thr Ser His Leu Phe Pro
 275 280 285
 Tyr Val Lys Lys Arg Ile Gln Val Ile Ser Gln Ser Ser Thr Glu Leu
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 Asn Pro Ile Glu Val Ala Ile Asp Glu Met Ser Lys Lys Val Ser Glu
 305 310 315 320
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 325 330 335
 Leu Lys Leu Gln Gly Ser Val Ser Val Lys Val Asn Ala Gly Pro Met
 340 345 350
 Ala Tyr Ala Arg Ala Phe Leu Glu Glu Thr Asn Ala Lys Lys Tyr Pro
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 Asp Asn Gln Val Lys Leu Leu Lys Glu Ile Phe Arg Gln Phe Ala Asp
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 Ala Cys Gly Gln Ala Leu Asp Val Asn Glu Arg Leu Ile Lys Glu Asp
 385 390 395 400
 Gln Leu Glu Tyr Gln Glu Glu Leu Arg Ser His Tyr Lys Asp Met Leu
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 Ser Glu Leu Ser Thr Val Met Asn Glu Gln Leu Cys Arg Gly Pro Cys
 420 425 430
 Leu Tyr Ser Phe Cys Ser Ser Val Ser Ser Ile Ser Leu Ser Thr Val
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<211> 426

<212> DNA

<213> Homo sapiens

<400> 5009

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<210> 5010

<211> 119

<212> PRT

<213> Homo sapiens

<400> 5010

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Ser	Tyr	Ala	Cys	Phe	Phe	Phe	Leu	Ser	Pro	Ser	Leu	Leu	Phe	Leu	Pro
			20					25					30		
Asn	Leu	Pro	Gly	Arg	Val	His	Gln	Phe	Phe	Ile	Ser	Pro	Leu	Phe	Ile
		35				40					45				
Leu	Ser	Phe	Glu	Val	Ile	Leu	Ile	His	Phe	Leu	His	Leu	Gln	Pro	Pro
	50					55			60						
Val	Leu	Leu	Asp	Leu	Ala	Pro	Asn	Leu	Leu	Leu	Pro	Phe	Gly	Thr	Glu
65					70				75					80	
Glu	Lys	Leu	Leu	Ser	Pro	Cys	Phe	Ala	Asp	Ile	Ser	Lys	Gly	Lys	
			85					90					95		
Glu	Ser	Thr	Gly	Pro	Phe	Ile	Ser	Cys	Pro	Arg	Pro	Ser	Gln	Gly	Ala
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<210> 5011

<211> 3431

<212> DNA

<213> Homo sapiens

<400> 5011

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<211> 950

<212> PRT

<213> Homo sapiens

<400> 5012

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Lys Ile Pro Val Asp Ala Ser Lys Pro Asn Pro Asn Asp Val Glu Phe
 35           40           45
Asp Asn Leu Tyr Leu Asp Met Asn Gly Ile Ile His Pro Cys Thr His
 50           55           60
Pro Glu Asp Lys Pro Ala Pro Lys Asn Glu Asp Glu Met Met Val Ala
 65           70           75           80
Ile Phe Glu Tyr Ile Asp Arg Leu Phe Ser Ile Val Arg Pro Arg Arg
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Leu Leu Tyr Met Ala Ile Asp Gly Val Ala Pro Arg Val Lys Met Asn
100           105           110
Gln Gln Arg Ser Arg Arg Phe Arg Ala Ile Lys Glu Gly Met Glu Ala
115           120           125
Ala Val Glu Lys Gln Arg Val Arg Glu Glu Ile Leu Ala Lys Gly Gly
130           135           140
Phe Leu Pro Pro Glu Glu Ile Lys Glu Arg Phe Asp Ser Asn Cys Ile
145           150           155           160
Thr Pro Gly Thr Glu Phe Met Asp Asn Leu Ala Lys Cys Leu Arg Tyr
165           170           175
Tyr Ile Ala Asp Arg Leu Asn Asn Asp Pro Gly Trp Lys Asn Leu Thr
180           185           190
Val Ile Leu Ser Asp Ala Ser Ala Pro Gly Glu Gly Glu His Lys Ile
195           200           205
Met Asp Tyr Ile Arg Arg Gln Arg Ala Gln Pro Asn His Asp Pro Asn
210           215           220
Thr His His Cys Leu Cys Gly Ala Asp Ala Asp Leu Ile Met Leu Gly
225           230           235           240
Leu Ala Thr His Glu Pro Asn Phe Thr Ile Ile Arg Glu Glu Phe Lys
245           250           255
Pro Asn Lys Pro Lys Pro Cys Gly Leu Cys Asn Gln Phe Gly His Glu
260           265           270
Val Lys Asp Cys Glu Gly Leu Pro Arg Glu Lys Lys Gly Lys His Asp
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370           375           380
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Asp Ser Ile Phe Lys Lys Arg Lys Asp Asp Glu Asp Ser Phe Arg Arg
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Arg Gln Lys Glu Lys Arg Lys Arg Met Lys Arg Asp Gln Pro Ala Phe

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Glu Asp Ser Asp Ser Glu Pro Glu Pro Glu Asp Asn Val Arg Leu Trp
      500      505      510
Glu Ala Gly Trp Lys Gln Arg Tyr Tyr Lys Asn Lys Phe Asp Val Asp
      515      520      525
Ala Ala Asp Glu Lys Phe Arg Arg Lys Val Val Gln Ser Tyr Val Glu
      530      535      540
Gly Leu Cys Trp Val Leu Arg Tyr Tyr Tyr Gln Gly Cys Ala Ser Trp
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Lys Trp Tyr Tyr Pro Phe His Tyr Ala Pro Phe Ala Ser Asp Phe Glu
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Gly Ile Ala Asp Met Pro Ser Asp Phe Glu Lys Gly Thr Lys Pro Phe
      580      585      590
Lys Pro Leu Glu Gln Leu Met Gly Val Phe Pro Ala Ala Ser Gly Asn
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Phe Leu Pro Pro Ser Trp Arg Lys Leu Met Ser Asp Pro Asp Ser Ser
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Ile Ile Asp Phe Tyr Pro Glu Asp Phe Ala Ile Asp Leu Asn Gly Lys
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Lys Tyr Ala Trp Gln Gly Val Ala Leu Leu Pro Phe Val Asp Glu Arg
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Arg Leu Arg Ala Ala Leu Glu Glu Val Tyr Pro Asp Leu Thr Pro Glu
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Glu Thr Arg Arg Asn Ser Leu Gly Gly Asp Val Leu Phe Val Gly Lys
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His His Pro Leu His Asp Phe Ile Leu Glu Leu Tyr Gln Thr Gly Ser
      690      695      700
Thr Glu Pro Val Glu Val Pro Pro Glu Leu Cys His Gly Ile Gln Gly
705      710      715      720
Lys Phe Ser Leu Asp Glu Glu Ala Ile Leu Pro Asp Gln Ile Val Cys
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Ser Pro Val Pro Met Leu Arg Asp Leu Thr Gln Asn Thr Val Val Ser
      740      745      750
Ile Asn Phe Lys Asp Pro Gln Phe Ala Glu Asp Tyr Ile Phe Lys Ala
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Val Met Leu Pro Gly Ala Arg Lys Pro Ala Ala Val Leu Lys Pro Ser
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Asp Trp Glu Lys Ser Ser Asn Gly Arg Gln Trp Lys Pro Gln Leu Gly
785      790      795      800
Phe Asn Arg Asp Arg Arg Pro Val His Leu Asp Gln Ala Ala Phe Arg
      805      810      815
Thr Leu Gly His Val Met Pro Arg Gly Ser Gly Thr Gly Ile Tyr Ser
      820      825      830
Asn Ala Ala Pro Pro Pro Val Thr Tyr Gln Gly Asn Leu Tyr Arg Pro
      835      840      845
Leu Leu Arg Gly Gln Ala Gln Ile Pro Lys Leu Met Ser Asn Met Arg

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Pro	Gln	Asp	Ser	Trp	Arg	Gly	Pro	Pro	Pro	Leu	Phe	Gln	Gln	Gln	Arg
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Phe	Asp	Arg	Gly	Val	Gly	Ala	Glu	Pro	Leu	Leu	Pro	Trp	Asn	Arg	Met
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Leu	Gln	Thr	Gln	Asn	Ala	Ala	Phe	Gln	Pro	Asn	Gln	Tyr	Gln	Met	Leu
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Ala	Gly	Pro	Gly	Gly	Tyr	Pro	Pro	Arg	Arg	Asp	Asp	Arg	Gly	Gly	Arg
		915						920				925			
Gln	Gly	Tyr	Pro	Arg	Glu	Gly	Arg	Lys	Tyr	Pro	Leu	Pro	Pro	Pro	Ser
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<211> 675

<212> PRT

<213> Homo sapiens

<400> 5014

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Asp Pro Glu Cys Glu Ile Glu Arg Pro Glu Arg Leu Thr Ala Ala Leu
 35          40          45
Asp Arg Leu Arg Gln Arg Gly Leu Glu Gln Arg Cys Leu Arg Leu Ser
 50          55          60
Ala Arg Glu Ala Ser Glu Glu Glu Leu Gly Leu Val His Ser Pro Glu
 65          70          75          80
Tyr Val Ser Leu Val Arg Glu Thr Gln Val Leu Gly Lys Glu Glu Leu
 85          90          95
Gln Ala Leu Ser Gly Gln Phe Asp Ala Ile Tyr Phe His Pro Ser Thr
100          105          110
Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp
115          120          125
Ala Val Leu Thr Gly Ala Val Gln Asn Gly Leu Ala Leu Val Arg Pro
130          135          140
Pro Gly His His Gly Gln Arg Ala Ala Ala Asn Gly Phe Cys Val Phe
145          150          155          160
Asn Asn Val Ala Ile Ala Ala Ala His Ala Lys Gln Lys His Gly Leu
165          170          175
His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile
180          185          190
Gln Tyr Leu Phe Glu Asp Asp Pro Ser Val Leu Tyr Phe Ser Trp His
195          200          205
Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala
210          215          220
Asp Ala Val Gly Arg Gly Gln Gly Leu Gly Phe Thr Val Asn Leu Pro
225          230          235          240
Trp Asn Gln Val Gly Met Gly Asn Ala Asp Tyr Val Ala Ala Phe Leu
245          250          255
His Leu Leu Leu Pro Leu Ala Phe Glu Phe Asp Pro Glu Leu Val Leu
260          265          270
Val Ser Ala Gly Phe Asp Ser Ala Ile Gly Asp Pro Glu Gly Gln Met
275          280          285
Gln Ala Thr Pro Glu Cys Phe Ala His Leu Thr Gln Leu Leu Gln Val
290          295          300
Leu Ala Gly Gly Arg Val Cys Ala Val Leu Glu Gly Gly Tyr His Leu
305          310          315          320
Glu Ser Leu Ala Glu Ser Val Cys Met Thr Val Gln Thr Leu Leu Gly
325          330          335
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340          345          350
Glu Gly Ser Ala Leu Glu Ser Ile Gln Ser Ala Arg Ala Ala Gln Ala
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Pro His Trp Lys Ser Leu Gln Gln Gln Asp Val Thr Ala Val Pro Met
370          375          380
Ser Pro Ser Ser His Ser Pro Glu Gly Arg Pro Pro Pro Leu Leu Pro
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Gly Gly Pro Val Cys Lys Ala Ala Ala Ser Ala Pro Ser Ser Leu Leu

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 Gln Glu Ala Ser Ala Leu Arg Glu Glu Thr Glu Ala Trp Ala Arg Pro
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 His Glu Ser Leu Ala Arg Glu Glu Ala Leu Thr Ala Leu Gly Lys Leu
 465 470 475 480
 Leu Tyr Leu Leu Asp Gly Met Leu Asp Gly Gln Val Asn Ser Gly Ile
 485 490 495
 Ala Ala Thr Pro Ala Ser Ala Ala Ala Thr Leu Asp Val Ala Val
 500 505 510
 Arg Arg Gly Leu Ser His Gly Ala Gln Arg Leu Leu Cys Val Ala Leu
 515 520 525
 Gly Gln Leu Asp Arg Pro Pro Asp Leu Ala His Asp Gly Arg Ser Leu
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 Trp Leu Asn Ile Arg Gly Lys Glu Ala Ala Ala Leu Ser Met Phe His
 545 550 555 560
 Val Ser Thr Pro Leu Pro Val Met Thr Gly Gly Phe Leu Ser Cys Ile
 565 570 575
 Leu Gly Leu Val Leu Pro Leu Ala Tyr Gly Phe Gln Pro Asp Leu Val
 580 585 590
 Leu Val Ala Leu Gly Pro Gly His Gly Leu Gln Gly Pro His Ala Ala
 595 600 605
 Leu Leu Ala Ala Met Leu Arg Gly Leu Ala Gly Gly Arg Val Leu Ala
 610 615 620
 Leu Leu Glu Glu Val Ser Trp Ala Gly Trp Arg Cys Cys Gly Val Gly
 625 630 635 640
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<211> 1360

<212> DNA

<213> Homo sapiens

<400> 5015

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<211> 284

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<213> Homo sapiens

<400> 5016

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		20						25				30			
Ala	Ala	Ile	Phe	Val	Gly	Gly	Ser	Gln	Ala	Trp	Leu	Glu	Met	Pro	Lys
		35					40					45			
Ser	Cys	Ala	Ala	Arg	Gln	Cys	Cys	Asn	Arg	Tyr	Ser	Ser	Arg	Arg	Lys
	50				55					60					
Gln	Leu	Thr	Phe	His	Arg	Phe	Pro	Phe	Ser	Arg	Pro	Glu	Leu	Leu	Lys
65				70					75					80	
Glu	Trp	Val	Leu	Asn	Ile	Gly	Arg	Gly	Asn	Phe	Lys	Pro	Lys	Gln	His
			85					90					95		
Thr	Val	Ile	Cys	Ser	Glu	His	Phe	Arg	Pro	Glu	Cys	Phe	Ser	Ala	Phe

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Gly Asn Arg Lys Asn Leu Lys His Asn Ala Val Pro Thr Val Phe Ala
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Phe Gln Asp Pro Thr Gln Gln Val Arg Glu Asn Thr Asp Pro Ala Ser
      130      135      140
Glu Arg Gly Asn Ala Ser Ser Gln Lys Glu Lys Val Leu Pro Glu
145      150      155      160
Ala Gly Ala Gly Glu Asp Ser Pro Gly Arg Asn Met Asp Thr Ala Leu
      165      170      175
Glu Glu Leu Gln Leu Pro Pro Asn Ala Glu Gly His Val Lys Gln Val
      180      185      190
Ser Pro Arg Arg Pro Gln Ala Thr Glu Ala Val Gly Arg Pro Thr Gly
      195      200      205
Pro Ala Gly Leu Arg Arg Thr Pro Asn Lys Gln Pro Ser Asp His Ser
      210      215      220
Tyr Ala Leu Leu Asp Leu Asp Ser Leu Lys Lys Lys Leu Phe Leu Thr
225      230      235      240
Leu Lys Glu Asn Glu Lys Leu Arg Lys Arg Leu Gln Ala Gln Arg Leu
      245      250      255
Val Met Arg Arg Met Ser Ser Arg Leu Arg Ala Cys Lys Gly His Arg
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<212> PRT

<213> Homo sapiens

<400> 5020

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Asp Pro Phe Asp Thr Leu Ala Thr Met Thr Asp Gln Gln Arg Glu Asp
      355              360              365
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 385              390              395              400
Phe Asn Ile His Asn Asn Arg Lys Arg Arg Arg Asp Ser Asp Gly Val
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<211> 494

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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Asn Trp Arg Thr Val Ile Asn Ser Ala Ala Asp Phe Tyr Phe Glu Gly			
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<212> PRT

<213> Homo sapiens

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			100					105					110		
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      180              185              190
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Cys Pro Thr Thr Ser Gly Thr Asp Phe Pro Ser Leu Gln Ser Lys Ala
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<211> 2596

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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Val Leu Asp Pro Lys Glu Lys Gln Lys Tyr Thr Asp Met Ala Lys Glu
 50 55 60
 Tyr Lys Asp Ala Phe Met Lys Ala Asn Pro Gly Tyr Lys Trp Cys Pro
 65 70 75 80
 Thr Thr Asn Lys Pro Val Lys Ser Pro His Pro Leu Ser Ile His Glu
 85 90 95
 Arg Asn Phe Gly Pro Ser His Leu Thr Leu Gln Glu Thr Cys Gln Ala
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 <213> Homo sapiens

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 <212> DNA
 <213> Homo sapiens

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<210> 5030

<211> 188

<212> PRT

<213> Homo sapiens

<400> 5030

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Val	Ile	Leu	Ile	Phe	Cys	Leu	Met	Thr	Leu	Ile	Gly	Asn	Leu	Phe	Ile
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Ile	Ile	Leu	Thr	Tyr	Leu	Asp	Ser	His	Leu	His	Thr	Pro	Leu	Tyr	Phe
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Phe	Leu	Ser	Asn	Leu	Ser	Phe	Leu	Asp	Leu	Cys	Tyr	Thr	Thr	Ser	Ser
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Ile	Pro	Gln	Leu	Leu	Val	Ser	Leu	Trp	Gly	Val	Glu	Lys	Thr	Ile	Ser
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Tyr	Ala	Gly	Cys	Met	Val	Gln	Leu	Tyr	Phe	Phe	Leu	Thr	Leu	Gly	Thr
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Thr	Glu	Cys	Val	Leu	Leu	Val	Val	Met	Ser	Tyr	Asp	Arg	Tyr	Ala	Ala
		115					120					125			
Val	Cys	Arg	Pro	Leu	His	Tyr	Thr	Val	Leu	Met	His	Ser	Arg	Phe	Cys
		130				135					140				
His	Leu	Leu	Ala	Val	Ala	Ser	Trp	Val	Ser	Gly	Phe	Thr	Asn	Pro	Ala
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Leu	His	Ser	Ser	Phe	Thr	Phe	Trp	Val	Pro	Leu	Cys	Gly	His	Arg	Gln
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<210> 5031
 <211> 505
 <212> DNA
 <213> Homo sapiens

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<210> 5032
 <211> 158
 <212> PRT
 <213> Homo sapiens

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 20 25 30
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 35 40 45
 Met Gly Val Leu Ala Arg Glu Ala Pro His Leu Glu Lys Gln Pro Ala
 50 55 60
 Ala Gly Pro Gln Arg Val Leu Pro Gly Glu Arg Glu Glu Arg Pro Pro
 65 70 75 80
 Thr Leu Ser Ala Ser Phe Arg Thr Met Ala Glu Phe Met Asp Tyr Thr
 85 90 95
 Ser Ser Gln Cys Gly Lys Tyr Tyr Ser Ser Val Pro Glu Glu Gly Gly
 100 105 110
 Ala Thr His Val Tyr Arg Tyr His Arg Gly Glu Ser Lys Leu His Met
 115 120 125
 Cys Leu Asp Ile Gly Asn Gly Gln Arg Lys Asp Arg Lys Lys Thr Ser
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<210> 5033
 <211> 2888

<212> DNA

<213> Homo sapiens

<400> 5033

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<210> 5034

<211> 550

<212> PRT

<213> Homo sapiens

<400> 5034

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His Phe Tyr Arg Pro Pro Arg Cys Ser His Cys Ser Val Cys Asp Asn
      35           40           45
Cys Val Glu Val Thr Gly Lys Phe Arg Gly Gly Val Asn Pro Phe Thr
      50           55           60
Arg Gly Cys Cys Gly Asn Val Glu His Val Leu Cys Ser Pro Leu Ala
      65           70           75           80
Pro Arg Tyr Val Val Glu Pro Pro Arg Leu Pro Leu Ala Val Ser Leu
      85           90           95
Lys Pro Pro Phe Leu Arg Pro Glu Leu Leu Asp Arg Ala Ala Pro Leu
      100          105          110
Lys Val Lys Leu Ser Asp Asn Gly Leu Lys Ala Gly Leu Gly Arg Ser
      115          120          125
Lys Ser Lys Gly Ser Leu Asp Arg Leu Asp Glu Lys Pro Leu Asp Leu
      130          135          140
Gly Pro Pro Leu Pro Pro Lys Ile Glu Ala Gly Thr Phe Ser Ser Asp
      145          150          155          160
Leu Gln Thr Pro Arg Pro Gly Ser Ala Glu Ser Ala Leu Ser Val Gln
      165          170          175
Arg Thr Ser Pro Pro Thr Pro Ala Met Tyr Lys Phe Arg Pro Ala Phe
      180          185          190
Pro Thr Gly Pro Lys Val Pro Phe Cys Gly Pro Gly Glu Gln Val Pro
      195          200          205
Gly Pro Asp Ser Leu Thr Leu Gly Asp Asp Asn Ile Arg Ser Leu Asp
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Phe Val Ser Glu Pro Ser Leu Asp Leu Pro Asp Tyr Gly Pro Gly Gly
      225          230          235          240
Leu His Ala Ala Tyr Pro Pro Ser Pro Pro Leu Ser Ala Ser Asp Ala
      245          250          255
Phe Ser Gly Ala Leu Arg Ser Leu Ser Leu Lys Ala Ser Ser Arg Arg
      260          265          270
Gly Gly Asp His Val Ala Leu Gln Pro Leu Arg Ser Glu Gly Gly Pro
      275          280          285
Pro Thr Pro His Arg Ser Ile Phe Ala Pro His Ala Leu Pro Asn Arg
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Asn Gly Ser Leu Ser Tyr Asp Ser Leu Leu Asn Pro Gly Ser Pro Gly
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Gly His Ala Cys Pro Ala His Pro Ala Val Gly Val Ala Gly Tyr His
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Ser Pro Tyr Leu His Pro Gly Ala Thr Gly Asp Pro Pro Arg Pro Leu
      340          345          350
Pro Arg Ser Phe Ser Pro Val Leu Gly Pro Arg Pro Arg Glu Pro Ser
      355          360          365
Pro Val Arg Tyr Asp Asn Leu Ser Arg Thr Ile Met Ala Ser Ile Gln
      370          375          380
Glu Arg Lys Asp Arg Glu Glu Arg Glu Arg Leu Leu Arg Ser Gln Ala
      385          390          395          400
Asp Ser Leu Phe Gly Asp Ser Gly Val Tyr Asp Ala Pro Ser Ser Tyr
      405          410          415
Ser Leu Gln Gln Ala Ser Val Leu Ser Glu Gly Pro Arg Gly Pro Ala

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420 425 430
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 Gly Ala Arg Asn Pro Ala Leu Gln Thr Ser Leu Ser Ser Leu Ser Ser
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 Ser Val Ser Arg Ala Pro Arg Thr Ser Ser Ser Leu Gln Ala Asp
 465 470 475 480
 Gln Ala Ser Ser Asn Ala Pro Gly Ala Pro Ala Gln Gln Trp Leu Thr
 485 490 495
 Gln Val Thr Cys Thr Pro Gly Pro Ala Leu Pro Ala Arg His Ser Pro
 500 505 510
 Leu Thr Ile Leu Arg Gly Pro Gln Ser Cys Arg Leu His Pro His Gly
 515 520 525
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 530 535 540
 Ala Glu Asp Ser Pro Lys
 545 550

<210> 5035
 <211> 2002
 <212> DNA
 <213> Homo sapiens

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<210> 5036

<211> 384

<212> PRT

<213> Homo sapiens

<400> 5036

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Phe	Gly	Gln	Ala	Glu	Lys	Thr	Glu	Leu	Asp	Ala	His	Phe	Glu	Asn	Leu
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Leu	Ala	Arg	Ala	Asp	Ser	Thr	Lys	Asn	Trp	Thr	Glu	Lys	Ile	Leu	Arg
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      85          90          95
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      100          105          110
Pro Thr Thr Pro Tyr Gly Lys Thr Leu Ile Lys Val Ala Glu Ala Glu
      115          120          125
Lys Gln Leu Gly Ala Ala Glu Arg Asp Phe Ile His Thr Ala Ser Ile
      130          135          140
Ser Phe Leu Thr Pro Leu Arg Asn Phe Leu Glu Gly Asp Trp Lys Thr
145          150          155          160
Ile Ser Lys Glu Ser Arg Leu Leu Gln Asn Arg Arg Leu Asp Leu Asp
      165          170          175
Ala Cys Lys Ala Arg Leu Lys Lys Ala Lys Ala Ala Glu Ala Lys Ala
      180          185          190
Thr Leu Trp Asn Asp Glu Val Asp Lys Ala Glu Gln Glu Leu Arg Val
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Ala Gln Thr Glu Phe Asp Arg Gln Ala Glu Val Thr Arg Leu Leu Leu
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Glu Gly Ile Ser Ser Thr His Val Asn His Leu Arg Cys Leu His Glu
225          230          235          240
Phe Val Lys Ser Gln Thr Thr Tyr Tyr Ala Gln Cys Tyr Arg His Met
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Leu Asp Leu Gln Lys Gln Leu Gly Ser Ser Gln Gly Ala Ile Ser Arg
      260          265          270
His Leu Arg Gly His His Arg Ala Arg Leu Pro Pro Leu Ser Ser Thr
      275          280          285
Ser Pro Thr Thr Ala Ala Ala Thr Met Pro Val Val Pro Ser Val Ala
      290          295          300
Ser Leu Ala Pro Pro Gly Glu Ala Ser Leu Cys Leu Glu Glu Val Ala
305          310          315          320
Pro Pro Ala Ser Gly Thr Arg Lys Ala Arg Val Leu Tyr Asp Tyr Glu
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Ala Ala Asp Ser Ser Glu Leu Ala Leu Leu Ala Asp Glu Leu Ile Thr
      340          345          350
Val Tyr Ser Leu Pro Gly Met Asp Pro Asp Trp Leu Ile Gly Glu Arg
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<210> 5037

<211> 2102

<212> DNA

<213> Homo sapiens

<400> 5037

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Ser Tyr Pro Lys Tyr Lys	His His Cys Ala Lys	Ile Leu Ser Met Phe		
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Gly Ser Thr Tyr Ile Cys	Glu Gln Leu Phe Ser	Ile Met Lys Leu Ser		
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<211> 616

<212> PRT

<213> Homo sapiens

<400> 5040

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Tyr	Leu	Gly	Ser	Gly	Gly	Trp	Arg	Phe	Ile	Arg	Val	Phe	Ile	Lys	Thr
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Lys	Val	Arg	Gln	Cys	Leu	Gln	Glu	Arg	Arg	Thr	Val	Pro	Ile	Leu	Phe
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Gly	Thr	Asp	Thr	His	Trp	Thr	Phe	Arg	Gln	Leu	Asp	Glu	Tyr	Ser	Ser
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Ala Pro Lys His Leu Pro Ser Cys Pro Asp Lys Gly Phe Thr Asp Lys
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<211> 2461

<212> DNA

<213> Homo sapiens

<400> 5041

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<212> PRT

<213> Homo sapiens

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Pro Gly His His Gly Gln Arg Ala Ala Ala Asn Gly Phe Cys Val Phe
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Asn Asn Val Ala Ile Ala Ala Ala His Ala Lys Gln Lys His Gly Leu
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His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile
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Gln Tyr Leu Phe Glu Asp Asp Pro Ser Val Leu Tyr Phe Ser Trp His
195          200          205
Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala
210          215          220
Asp Ala Val Gly Arg Gly Gln Gly Leu Gly Phe Thr Val Asn Leu Pro
225          230          235          240
Trp Asn Gln Val Gly Met Gly Asn Ala Asp Tyr Val Ala Ala Phe Leu
245          250          255
His Leu Leu Leu Pro Leu Ala Phe Glu Phe Asp Pro Glu Leu Val Leu
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275          280          285
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340          345          350
Glu Gly Ser Ala Leu Glu Ser Ile Gln Ser Ala Arg Ala Ala Gln Ala
355          360          365
Pro His Trp Lys Ser Leu Gln Gln Gln Asp Val Thr Ala Val Pro Met
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Ser Pro Ser Ser His Ser Pro Glu Gly Arg Pro Pro Pro Leu Leu Pro
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Gly Gly Pro Val Cys Lys Ala Ala Ala Ser Ala Pro Ser Ser Leu Leu
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Asp Gln Pro Cys Leu Cys Pro Ala Pro Ser Val Arg Thr Ala Val Ala
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Leu Thr Thr Pro Asp Ile Thr Leu Val Leu Pro Pro Asp Val Ile Gln

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<211> 429

<212> PRT

<213> Homo sapiens

<400> 5048

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Glu Phe Pro Asp Asn Asp Ser Leu Val Val Leu Phe Ala Gln Val Asn
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Cys Asn Gly Phe Thr Ile Glu Asp Glu Glu Leu Ser His Leu Gly Ser
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Val Ile Val Thr Tyr Lys Gly Thr Leu Ala Glu Val Arg Ala Val Gln
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      370              375              380
Gly Arg Leu Tyr Met Gly Leu Glu His Lys Ala Ala Gly Glu Lys Ala
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<212> PRT

<213> Homo sapiens

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<211> 4125

<212> DNA

<213> Homo sapiens

<400> 5051

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<211> 433

<212> PRT

<213> Homo sapiens

<400> 5052

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      130          135          140
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Pro Ile Gln Glu Arg Phe Phe Arg Pro His Phe Leu Gln Ala Pro Gly
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      195          200          205
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Cys Arg Val Leu Gly Val Pro Pro Gln Ile Phe Trp Lys Lys Glu
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Cys Thr Ala Arg Leu Asp Val Tyr Thr Gln Trp His Gln Gln Ser Gln
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Ser Thr Lys Pro Lys Lys Val Arg Pro Ser Ala Ser Arg Tyr Ala Ala
      385          390          395          400
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 <211> 781
 <212> DNA
 <213> Homo sapiens

<400> 5053

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<210> 5054

<211> 156

<212> PRT

<213> Homo sapiens

<400> 5054

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Leu	Ala	Leu	Ala	Ser	Val	Pro	Cys	Ala	Gln	Gly	Ala	Cys	Pro	Ala	Ser
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Trp	Ser	Arg	Gln	Gly	Lys	Ala	Gly	Lys	Thr	His	Lys	Phe	Ser	Ala	Gly
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Thr	Tyr	Pro	Arg	Leu	Glu	Glu	Tyr	Arg	Arg	Gly	Ile	Leu	Gly	Asp	Trp
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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 Gly Gln Thr Pro Gln Glu Arg Val Glu Glu Val Leu Ser Gly Lys Leu
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 Phe Asp Arg Leu Arg Asp Glu Asn Pro Asp Phe Arg Glu Lys Ile Ile
 65 70 75 80
 Ala Ile Asn Ser Glu Leu Thr Gln Pro Lys Leu Ala Leu Ser Glu Glu
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 <212> DNA
 <213> Homo sapiens

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Ala	Leu	Cys	Pro	Glu	Arg	Pro	Ser	Gln	Ser	Ala	Arg	Ala	Val	Ile	Thr
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<212> PRT

<213> Homo sapiens

<400> 5062

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Val Arg Arg Ser Pro Ser Ser Arg Phe Ser Phe Phe Pro Pro Gln Gln
 35           40           45
Arg Asn Trp Arg Lys Asp Ile Lys Leu Ser Ala Val Asp Leu Ser Ala
 50           55           60
Glu Ile Phe Pro Glu Ser Met Val Val Leu Asn Tyr Leu His Val Ser
 65           70           75           80
Ser Ile Phe Asn Ser Gly Val Gly Leu Phe Leu Ile Ser Ser Gln Lys
 85           90           95
Cys Ser Ala Leu Gly Glu Gly Thr Ser Pro Leu Ala Cys His Phe Pro
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<211> 561

<212> DNA

<213> Homo sapiens

<400> 5063

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<212> PRT

<213> Homo sapiens

<400> 5064

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      20           25           30
Ala Arg Lys Tyr Trp Leu Thr Cys Phe Glu Glu Ala Leu Asp Gly Val
      35           40           45
Val Lys Arg Ala Val Ala Ser Gln Pro Asp Ser Val Asp Ala Ala Glu
      50           55           60
Arg Ala Glu Lys Phe Arg Gln Lys Tyr Trp Asn Lys Leu Gln Thr Leu
65           70           75           80
Arg Gln Gln Pro Phe Ala Tyr Gly Thr Leu Thr Val Arg Ser Leu Leu
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<211> 370

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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Leu Lys Thr Ile Ala Asp His Ser Glu Lys Asn Lys Met Glu Pro Arg
      35           40           45
Asn Leu Ala Leu Val Phe Gly Pro Thr Leu Val Arg Thr Ser Glu Asp
      50           55           60
Asn Met Thr Asp Met Val Thr His Met Pro Asp Arg Tyr Lys Ile Val
65           70           75           80
Glu Thr Leu Ile Gln His Ser Asp Trp Phe Phe Ser Asp Glu Glu Asp

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<211> 179

<212> PRT

<213> Homo sapiens

<400> 5068

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			20					25					30		
Ala	Leu	Gln	Asn	Glu	Arg	Thr	Glu	Arg	Ile	Arg	Ser	Leu	Leu	Glu	Arg
			35				40					45			
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			50			55				60					
Phe	Ser	Asn	Met	Val	Leu	Ser	Asn	Leu	Ser	Pro	Glu	Ala	Phe	Ser	His
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Ser	Tyr	Pro	Gly	Ala	Ser	Gly	Trp	Ser	His	Asn	Pro	Thr	Gly	Gly	Pro
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Gly	Pro	His	Trp	Gly	His	Pro	Met	Gly	Gly	Pro	Pro	Gln	Ala	Trp	Gly
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His	Pro	Met	Gln	Gly	Gly	Pro	Gln	Pro	Trp	Gly	His	Pro	Ser	Gly	Pro
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Gln	Ala	Leu	Arg	Arg	Thr	Ala	Ser	Gly	Gly	Arg	Thr	Glu	Gln	Gly	Met
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<212> DNA
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<211> 255

<212> PRT

<213> Homo sapiens

<400> 5070

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Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Gly	Arg	Ser	Tyr	Cys	Gly
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Arg	Ala	Tyr	Ala	Ile	Ala	Arg	Gly	Gln	Arg	Tyr	Tyr	Gly	Phe	Gly	Arg
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 1740
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 1920
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 1980
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 2040
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<210> 5072

<211> 76

<212> PRT

<213> Homo sapiens

<400> 5072

Met	Glu	Ser	His	Ser	Val	Thr	Gln	Ala	Gly	Val	Gln	Cys	Arg	Asp	Leu
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Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Arg	Phe	Lys	Gln	Phe	Ser	His	Leu
			20					25					30		
Ser	Leu	Gln	Ser	Ser	Trp	Asp	Tyr	Arg	His	Ala	Gln	Pro	Cys	Pro	Ala
			35				40					45			
Asn	Phe	Cys	Asn	Phe	Ser	Arg	Asp	Gly	Phe	Ser	Leu	Ser	Arg	Asp	Gly
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Cys	Leu	Pro	Gly	Trp	Ser	Arg	Thr	Pro	Asp	Leu	Arg				
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<210> 5073

<211> 1712

<212> DNA

<213> Homo sapiens

<400> 5073

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 1712

<210> 5074
 <211> 240
 <212> PRT
 <213> Homo sapiens

<400> 5074
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 35 40 45
 Thr Thr Val Leu Ser Asp Gln Gln Val Val Glu Leu Ile Pro Gly Gly
 50 55 60
 Ala Gly Ile Val Val Gly Tyr Gly Asp Arg Ser Arg Phe Ile Gln Leu
 65 70 75 80
 Val Gln Lys Ala Arg Leu Glu Glu Ser Lys Glu Gln Val Ala Ala Met
 85 90 95
 Gln Ala Gly Leu Leu Lys Val Val Pro Gln Ala Val Leu Asp Leu Leu
 100 105 110
 Thr Trp Gln Glu Leu Glu Lys Lys Val Cys Gly Asp Pro Glu Val Thr
 115 120 125
 Val Asp Ala Leu Arg Lys Leu Thr Arg Phe Glu Asp Phe Glu Pro Ser
 130 135 140
 Asp Ser Arg Val Gln Tyr Phe Trp Glu Ala Leu Asn Asn Phe Thr Asn
 145 150 155 160
 Glu Asp Arg Ser Arg Phe Leu Arg Phe Val Thr Gly Arg Ser Arg Leu
 165 170 175
 Pro Ala Arg Xaa Ser Thr Ser Thr Gln Thr Ser Trp Ala Thr Arg Pro
 180 185 190
 Xaa Asp Ala Leu Pro Glu Ser Ser Thr Cys Ser Ser Thr Leu Phe Leu
 195 200 205
 Pro His Tyr Ala Ser Ala Lys Val Cys Glu Glu Lys Leu Arg Tyr Ala
 210 215 220
 Ala Tyr Asn Cys Val Ala Ile Asp Thr Asp Met Ser Pro Trp Glu Glu
 225 230 235 240

<210> 5075
 <211> 444
 <212> DNA
 <213> Homo sapiens

<400> 5075

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120
ttactaaaaa gaataaacag tgctcggatga atggtgagag gaccagagag gaaatgggaa
180
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240
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300
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444

<210> 5076
<211> 90
<212> PRT
<213> Homo sapiens

<400> 5076
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20 25 30
Cys Trp Asp Gly Gly Gly Ser Gly Asn Phe Ser Ser Pro Gly Thr Leu
35 40 45
Arg Glu Thr Glu Val Ile Thr Ala Val Leu Glu Leu Gly Arg Gly Gly
50 55 60
Asp Gln Val Thr Ala Asp Gln Lys Ser Leu Asn Ile Asn Ala Met Glu
65 70 75 80
Arg Glu Leu Ala Leu Ser Leu Arg Val Ala
85 90

<210> 5077
<211> 2352
<212> DNA
<213> Homo sapiens

<400> 5077
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120
cagcagatca tgtttgtctg attattaaga attctttttt gtaacattaa ctctctaaag
180
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240
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300
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360

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420
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480
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720
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1980

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 2160
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 2220
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 2340
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 2352

<210> 5078

<211> 558

<212> PRT

<213> Homo sapiens

<400> 5078

Met	Ala	Glu	Leu	Asn	Thr	His	Val	Asn	Val	Lys	Glu	Lys	Ile	Tyr	Ala
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			20					25					30		
Leu	Gln	Gln	Phe	Asp	Phe	Asn	Val	Asp	Lys	Ala	Val	Gln	Ala	Phe	Val
		35					40					45			
Asp	Gly	Ser	Ala	Ile	Gln	Val	Leu	Lys	Glu	Trp	Asn	Met	Thr	Gly	Lys
	50					55					60				
Lys	Lys	Asn	Asn	Lys	Arg	Lys	Arg	Ser	Lys	Ser	Lys	Gln	His	Gln	Gly
65					70					75				80	
Asn	Lys	Asp	Ala	Lys	Asp	Lys	Val	Glu	Arg	Pro	Glu	Ala	Gly	Pro	Leu
			85						90					95	
Gln	Pro	Gln	Pro	Pro	Gln	Ile	Gln	Asn	Gly	Pro	Met	Asn	Gly	Cys	Glu
			100					105					110		
Lys	Asp	Ser	Ser	Ser	Thr	Asp	Ser	Ala	Asn	Glu	Lys	Pro	Ala	Leu	Ile
	115						120					125			
Pro	Arg	Glu	Lys	Lys	Ile	Ser	Ile	Leu	Glu	Glu	Pro	Ser	Lys	Ala	Leu
	130					135					140				
Arg	Gly	Val	Thr	Glu	Gly	Asn	Arg	Leu	Leu	Gln	Gln	Lys	Leu	Ser	Leu
145					150					155				160	
Asp	Gly	Asn	Pro	Lys	Pro	Ile	His	Gly	Thr	Thr	Glu	Arg	Ser	Asp	Gly
			165						170					175	
Leu	Gln	Trp	Ser	Ala	Glu	Gln	Pro	Cys	Asn	Pro	Ser	Lys	Pro	Lys	Ala
		180						185					190		
Lys	Thr	Ser	Pro	Val	Lys	Ser	Asn	Thr	Pro	Ala	Ala	His	Leu	Glu	Ile
	195						200					205			
Lys	Pro	Asp	Glu	Leu	Ala	Lys	Lys	Arg	Gly	Pro	Asn	Ile	Glu	Lys	Ser
	210					215					220				
Val	Lys	Asp	Leu	Gln	Arg	Cys	Thr	Val	Ser	Leu	Thr	Arg	Tyr	Arg	Val
225					230					235				240	
Met	Ile	Lys	Glu	Glu	Val	Asp	Ser	Ser	Val	Lys	Lys	Ile	Lys	Ala	Ala
			245						250					255	
Phe	Ala	Glu	Leu	His	Asn	Cys	Ile	Ile	Asp	Lys	Glu	Val	Ser	Leu	Met

260	265	270
Ala Glu Met Asp Lys Val Lys Glu Glu Ala Met Glu Ile Leu Thr Ala		
275	280	285
Arg Gln Lys Lys Ala Glu Glu Leu Lys Arg Leu Thr Asp Leu Ala Ser		
290	295	300
Gln Met Ala Glu Met Gln Leu Ala Glu Leu Arg Ala Glu Ile Lys His		
305	310	315
Phe Val Ser Glu Arg Lys Tyr Asp Glu Glu Leu Gly Lys Ala Ala Arg		
325	330	335
Phe Ser Cys Asp Ile Glu Gln Leu Lys Ala Gln Ile Met Leu Cys Gly		
340	345	350
Glu Ile Thr His Pro Lys Asn Asn Tyr Ser Ser Arg Thr Pro Cys Ser		
355	360	365
Ser Leu Leu Pro Leu Leu Asn Ala His Ala Ala Thr Ser Gly Lys Gln		
370	375	380
Ser Asn Phe Ser Arg Lys Ser Ser Thr His Asn Lys Pro Ser Glu Gly		
385	390	395
Lys Ala Ala Asn Pro Lys Met Val Ser Ser Leu Pro Ser Thr Ala Asp		
405	410	415
Pro Ser His Gln Thr Met Pro Ala Asn Lys Gln Asn Gly Ser Ser Asn		
420	425	430
Gln Arg Arg Arg Phe Asn Pro Gln Tyr His Asn Asn Arg Leu Asn Gly		
435	440	445
Pro Ala Lys Ser Gln Gly Ser Gly Asn Glu Ala Glu Pro Leu Gly Lys		
450	455	460
Gly Asn Ser Arg His Glu His Arg Arg Gln Pro His Asn Gly Phe Arg		
465	470	475
Pro Lys Asn Lys Gly Gly Ala Lys Asn Gln Glu Ala Ser Leu Gly Met		
485	490	495
Lys Thr Pro Glu Ala Pro Ala His Ser Glu Lys Pro Arg Arg Arg Gln		
500	505	510
His Ala Ala Asp Thr Ser Glu Ala Arg Pro Phe Arg Gly Ser Val Gly		
515	520	525
Arg Val Ser Gln Cys Asn Leu Cys Pro Thr Arg Ile Glu Val Ser Thr		
530	535	540
Asp Ala Ala Val Leu Ser Val Pro Ala Val Thr Leu Val Ala		
545	550	555

<210> 5079

<211> 1338

<212> DNA

<213> Homo sapiens

<400> 5079

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120

ccacgtttcc ttttagcggg gctggcggag ccgcaaggcg gcaaggaact ggattgcat
180

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300

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 1338

<210> 5080

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5080

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 Gly Gly Asp Ser Gly Arg Arg Asn Met Ala Val Ala Asp Leu Ala Leu
 35 40 45
 Ile Pro Asp Val Asp Ile Asp Ser Asp Gly Val Phe Lys Tyr Val Leu
 50 55 60
 Ile Arg Val His Ser Ala Pro Arg Ser Gly Ala Pro Ala Ala Glu Ser
 65 70 75 80
 Lys Glu Ile Val Arg Gly Tyr Lys Trp Ala Glu Tyr His Ala Asp Ile

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      85      90      95
Tyr Asp Lys Val Ser Gly Asp Met Gln Lys Gln Gly Cys Asp Cys Glu
      100      105      110
Cys Leu Gly Gly Gly Arg Ile Ser His Gln Ser Gln Asp Lys Lys Ile
      115      120      125
His Val Tyr Gly Tyr Ser Met Val Ser Arg Ser Pro Val Pro Pro Cys
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Arg Arg Pro Gln Tyr Gln Leu Arg Gly Pro Pro Glu Pro Ala Ala Leu
145      150      155      160
Thr Arg Gly Pro Ser
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<210> 5081
 <211> 561
 <212> DNA
 <213> Homo sapiens

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<400> 5081
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240
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420
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561

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<210> 5082
 <211> 111
 <212> PRT
 <213> Homo sapiens

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<400> 5082
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20      25      30
Asp Ala Val Arg Met Pro Leu Gly Ala Gly Thr Pro Val Asn Val Gln
35      40      45
Arg Arg Glu Asp Ser Ala Thr Glu Gly Ser His Arg Leu Ile Leu Ala
50      55      60
Ala Asn Arg Asp Glu Phe Tyr Ser Arg Pro Ser Lys Leu Ala Asp Phe

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65					70					75					80
Trp	Gly	Asn	Asn	Asn	Glu	Ile	Leu	Ser	Gly	Leu	Asp	Met	Glu	Glu	Gly
				85					90				95		
Lys	Glu	Gly	Gly	Thr	Trp	Leu	Gly	Ile	Ser	Thr	Arg	Gly	Lys	Leu	
			100				105						110		

<210> 5083

<211> 1856

<212> DNA

<213> Homo sapiens

<400> 5083

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<211> 396

<212> PRT

<213> Homo sapiens

<400> 5084

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Arg Arg Glu His Ala Ser Ile Asp Ala Gln Ser Gly Ala Gly Val Pro		350
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<212> DNA

<213> Homo sapiens

<400> 5085

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<212> PRT

<213> Homo sapiens

<400> 5086

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<211> 4949

<212> DNA

<213> Homo sapiens

<400> 5087

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<210> 5090

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5090

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<210> 5091

<211> 3150

<212> DNA

<213> Homo sapiens

<400> 5091

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<210> 5092

<211> 632

<212> PRT

<213> Homo sapiens

<400> 5092

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Met Ala Pro Arg Glu Leu Pro Thr Cys Ser Ile Cys Leu Glu Arg Leu
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Arg Asp Pro Ile Ser Leu Asp Cys Gly His Asp Phe Cys Ile Arg Cys
65           70           75           80
Phe Ser Thr His Arg Leu Pro Gly Cys Glu Pro Pro Cys Cys Pro Glu
      85           90           95
Cys Arg Lys Ile Cys Lys Gln Lys Arg Gly Leu Arg Ser Leu Gly Glu
      100          105          110
Lys Met Lys Leu Leu Pro Gln Arg Pro Leu Pro Pro Ala Leu Gln Glu
      115          120          125
Thr Cys Pro Val Arg Ala Glu Pro Leu Leu Leu Val Arg Ile Asn Ala
      130          135          140
Ser Gly Gly Leu Ile Leu Arg Met Gly Ala Ile Asn Arg Cys Leu Lys
      145          150          155          160
His Pro Leu Ala Arg Asp Thr Pro Val Cys Leu Leu Ala Val Leu Gly
      165          170          175
Glu Gln His Ser Gly Lys Ser Phe Leu Leu Asn His Leu Leu Gln Gly
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Leu Pro Gly Leu Glu Ser Gly Glu Gly Gly Arg Pro Arg Gly Gly Glu
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Ala Ser Leu Gln Gly Cys Arg Trp Gly Ala Asn Gly Leu Ala Gly Gly
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Ile Trp Met Trp Ser His Pro Phe Leu Leu Gly Lys Glu Gly Lys Lys
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Val Ala Val Phe Leu Val Asp Thr Gly Asp Ala Met Ser Pro Glu Leu
      245          250          255
Ser Arg Glu Thr Arg Ile Lys Leu Cys Ala Leu Thr Thr Met Leu Ser
      260          265          270
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Asp Tyr Leu Glu Met Phe Val His Val Ala Glu Val Met Gly Lys His
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Tyr Gly Met Val Pro Ile Gln His Leu Asp Leu Leu Val Arg Asp Ser
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Ser His Pro Asn Lys Ala Gly Gln Gly His Val Gly Asn Ile Phe Gln
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Lys Asn Leu Ser Gly Trp Met Gly Arg Thr Gly Pro Gly Phe Thr Ser
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Pro Asp Glu Met Ala Ala Gln Leu His Asp Leu Arg Lys Val Glu Ala
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Ala Lys Arg Glu Phe Glu Glu Tyr Val Arg Gln Gln Asp Val Ala Thr
465          470          475          480
Lys Arg Ile Phe Ser Ala Leu Arg Val Leu Pro Asp Thr Met Arg Asn
          485          490          495
Leu Leu Ser Thr Gln Lys Asp Ala Ile Leu Ala Arg His Gly Val Ala
          500          505          510
Leu Leu Cys Lys Gly Arg Asp Gln Thr Leu Glu Ala Leu Glu Ala Glu
          515          520          525
Leu Gln Ala Thr Ala Lys Ala Phe Met Asp Ser Tyr Thr Met Arg Phe
530          535          540
Cys Gly His Leu Ala Ala Val Gly Gly Ala Val Gly Ala Gly Leu Met
545          550          555          560
Gly Leu Ala Gly Gly Val Val Gly Ala Gly Met Ala Ala Ala Leu
          565          570          575
Ala Ala Glu Ala Gly Met Val Ala Ala Gly Ala Ala Val Gly Ala Thr
          580          585          590
Gly Ala Ala Val Val Gly Gly Gly Val Gly Ala Gly Leu Ala Ala Thr
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Val Gly Cys Met Glu Lys Glu Glu Asp Glu Arg Leu Leu Glu Gly Asp
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 <211> 1662
 <212> DNA
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<210> 5094

<211> 365

<212> PRT

<213> Homo sapiens

<400> 5094

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 Glu Leu Met Pro Ser Ser Arg Leu Trp Ser Leu Ser Tyr Thr Lys Leu

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Val Leu Glu Pro Leu Tyr	Leu Cys Pro Asn Gly	Ala Arg Cys Ala Thr		
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Trp Phe Gln Asp Pro Thr	Arg Phe Thr Gly Thr	Met Asp Ala Phe Val		
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Lys Ile Val Arg His Glu	Gly Thr Arg Thr Leu	Trp Ser Gly Leu Pro		
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Tyr Asp Gln Leu Lys Ala	Phe Leu Cys Gly Arg	Ala Leu Thr Ser Asp		
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Leu Tyr Ala Pro Met Val	Ala Gly Ala Leu Ala	Arg Leu Gly Thr Val		
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Thr Val Ile Ser Pro Leu	Glu Leu Met Arg Thr	Lys Leu Gln Ala Gln		
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Gln Gly Gly Trp Arg Ser	Leu Trp Leu Gly Trp	Gly Pro Thr Ala Leu		
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Asp Gln Thr Ser Val Gly	Met Ser Phe Val Ala	Gly Gly Ile Ser Gly		
	260	265	270	
Thr Val Ala Val Leu Thr	Leu Pro Phe Asp Val	Val Val Lys Thr Gln		
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Arg Gln Val Ala Leu Gly	Ala Met Glu Ala Val	Arg Val Asn Pro Leu		
	290	295	300	
His Val Asp Ser Thr Trp	Leu Leu Leu Arg Arg	Ile Arg Ala Glu Ser		
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<210> 5095

<211> 2230

<212> DNA

<213> Homo sapiens

<400> 5095

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 <211> 153
 <212> PRT
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 65 70 75 80
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 85 90 95
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 100 105 110
 Arg Pro Phe Ala Gly Thr His Cys Phe Asn Leu Thr Leu Pro Pro Pro
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 <211> 3074
 <212> DNA
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<210> 5098

<211> 114

<212> PRT

<213> Homo sapiens

<400> 5098

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 <213> Homo sapiens

<400> 5100

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<210> 5101

<211> 1711

<212> DNA

<213> Homo sapiens

<400> 5101

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<211> 436

<212> PRT

<213> Homo sapiens

<400> 5102

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 Tyr Leu Tyr Arg Lys Gly Tyr Leu Ser Leu Ser Lys Val Val Pro Phe
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 Ser His Tyr Ala Gly Thr Leu Leu Leu Leu Leu Ala Gly Val Ala Cys
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 Leu Arg Gly Ile Gly Arg Trp Thr Asn Pro Gln Tyr Arg Gln Phe Ile
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 Thr Ile Leu Glu Ala Thr His Arg Asn Gln Ser Ser Glu Asn Lys Arg
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 Gln Leu Ala Asn Tyr Asn Phe Asp Phe Arg Ser Trp Pro Val Asp Phe
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 His Trp Glu Glu Pro Ser Ser Arg Lys Glu Ser Arg Gly Gly Pro Ser

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 Arg Arg Gly Val Ala Leu Leu Arg Pro Glu Pro Leu His Arg Gly Thr
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 Tyr Ser Val Leu Gly Trp Asn His Pro Gly Phe Ala Gly Ser Thr Gly
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<211> 1982

<212> DNA

<213> Homo sapiens

<400> 5103

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1982

<210> 5104
<211> 167
<212> PRT
<213> Homo sapiens

<400> 5104
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Pro Ala Ala Ser Leu Lys Thr Thr Lys Asp Leu Met Ser Lys Ser Leu
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Ser Gly Val Cys Pro Ala Ser Ser Gly Leu Leu Arg Thr Pro His Pro
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Glu Gly Ala Arg Arg Pro Ala Gly Leu Ala Gly Pro Gly Ser Ser Leu
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Thr Ala Gly Trp Thr Ala Phe Arg Thr Cys Pro Gly Cys Ser Ala Phe
100 105 110
Val Ala Gly Ser Asn Trp Arg Asn Leu Glu Arg Gly Ser Cys Ala Cys
115 120 125
Lys Asp Gly Phe Cys Val Ser Ser Gly Phe Leu Leu Ser Gly Pro Gly
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<210> 5105
<211> 1359
<212> DNA
<213> Homo sapiens

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<210> 5106

<211> 178

<212> PRT

<213> Homo sapiens

<400> 5106

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Asp	Gln	Gly	Gly	Glu	Tyr	Val	Gln	Pro	Met	Leu	Ser	Lys	Tyr	Ala	Ala
Val	Cys	Val	Arg	Cys	Pro	Gly	Tyr	Gly	Thr	Arg	Thr	Asn	Thr	Ile	Ile

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 <211> 1207
 <212> DNA
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<210> 5108
<211> 83
<212> PRT
<213> Homo sapiens

<400> 5108
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35 40 45
Lys Arg Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp Tyr Arg Arg
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<210> 5109
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<212> DNA
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<210> 5110
<211> 206
<212> PRT

<213> Homo sapiens

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 Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp Ile Lys Val Leu
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 Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys
 50 55 60
 Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala
 65 70 75 80
 Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
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 Leu Lys Tyr Asp Pro Asp Pro Val Leu Asn Gly Asn Ala Phe Asn Phe
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 Ser Pro Phe Asn Met Met Leu Ala Val Asp Leu Ser Tyr Met Val Phe
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 His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser Cys His Arg Lys
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<210> 5111

<211> 2247

<212> DNA

<213> Homo sapiens

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2160

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<210> 5112

<211> 581

<212> PRT

<213> Homo sapiens

<400> 5112

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Cys	Thr	Pro	Thr	Ser	Thr	Gln	Ala	Lys	Met	Val	Ser	Lys	Arg	Ile	Ala
			100					105					110		
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Gln	Gly	Val	Asp	Leu	Ser	Asn	Ile	Val	Lys	Thr	Ala	Pro	Lys	Val	Ser
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Asp	Leu	Gln	Glu	Ser	Val	Ala	Ser	Ser	Arg	Pro	Gln	Glu	Val	Ser	Ala
			180						185					190	
Tyr	Leu	Thr	Arg	Phe	Cys	Asp	Gln	Cys	Lys	Gln	Asp	Lys	Ala	Cys	Arg
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Lys	Leu	Ala	Thr	Ala	Gly	Asp	Gln	Gly	Leu	Leu	Gln	Ser	Leu	Asn	
225					230					235				240	
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Asp	Leu	Thr	Cys	Ser	Gly	Ile	Arg	Cys	Val	Arg	His	Ala	Cys	Leu	Lys
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His	Glu	Gln	Asn	Arg	Gln	Asp	Leu	Val	Lys	Ala	Gly	Val	Leu	Pro	Leu
	290					295					300				
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Glu	Ala	Cys	Trp	Ala	Leu	Arg	Val	Met	Thr	Phe	Asp	Asp	Asp	Ile	Arg
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Val	Pro	Phe	Gly	His	Ala	His	Asn	His	Ala	Lys	Met	Ile	Val	Gln	Glu

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          370          375          380
Ile Arg Asn Glu Phe Cys Gln Glu Val Val Asp Leu Gly Gly Leu Ser
385          390          395          400
Ile Leu Val Ser Leu Leu Ala Asp Cys Asn Asp His Gln Met Arg Asp
          405          410          415
Gln Ser Gly Val Gln Glu Leu Val Lys Gln Val Leu Ser Thr Leu Arg
          420          425          430
Ala Ile Ala Gly Asn Asp Asp Val Lys Asp Ala Ile Val Arg Ala Gly
          435          440          445
Gly Thr Glu Ser Ile Val Ala Ala Met Thr Gln His Leu Thr Ser Pro
          450          455          460
Gln Val Trp Glu Gln Ser Cys Ala Ala Leu Cys Phe Leu Ala Leu Arg
465          470          475          480
Lys Pro Asp Asn Ser Arg Ile Ile Val Glu Gly Gly Gly Ala Val Ala
          485          490          495
Ala Leu Gln Ala Met Lys Ala His Pro Gln Lys Ala Gly Val Gln Lys
          500          505          510
Gln Ala Cys Met Leu Ile Arg Asn Leu Val Ala His Gly Gln Ala Phe
          515          520          525
Ser Lys Pro Ile Leu Asp Leu Gly Ala Glu Ala Leu Ile Met Gln Ala
          530          535          540
Arg Ser Ala His Arg Asp Cys Glu Asp Val Ala Lys Ala Ala Leu Arg
545          550          555          560
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Gly Asn Leu Ala Pro
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<210> 5113

<211> 472

<212> DNA

<213> Homo sapiens

<400> 5113

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<210> 5114
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 5114
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 35 40 45
 Gln Cys Arg His Thr Gly His Arg Ser Val Gln Glu Gly Pro Phe Ala
 50 55 60
 Asn Val His Ser Ser Leu Cys Leu Phe Ser Tyr Ala Phe Leu Asp Trp
 65 70 75 80
 Ser Lys Arg Phe Phe Phe Pro Ser Lys Glu Gln Phe Met Phe Leu Asn
 85 90 95
 Thr Phe Phe Pro
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<210> 5115
 <211> 1003
 <212> DNA
 <213> Homo sapiens

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<210> 5116
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 <212> PRT
 <213> Homo sapiens

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 Ser Pro Gly Pro Gln Ala Leu Lys Gly Gly Ala Arg Gly Ser Gly His
 35 40 45
 Val Leu Thr Ser Ser Ser Gly Ser Ala Cys Ala Gly Ser Pro Leu Cys
 50 55 60
 Pro Ala Met Ser His Leu Gly Val Ser His Val Arg Glu Gln Leu Leu
 65 70 75 80
 Leu Ser Ile Met Gln Phe Leu Ser Trp Val Ile Ala Val His Gly Glu
 85 90 95
 Gln Val His Ala Gln Pro Val His Pro Leu Phe Leu Leu Tyr Ile His
 100 105 110
 Tyr His Ser His His His Pro Asp Gln Gly Asp Glu Glu Glu Gly Pro
 115 120 125
 Gln His Ile Ala His His Gly Val Ala Val Gly Leu Gly Gly Ile Gly
 130 135 140
 His Ser Gly Val Thr His Asp Ile Ser Ser Arg Ala Gly Trp Ser
 145 150 155 160
 Ala Trp Ala Val Ala Leu Arg Glu Gly Ala Ser Thr Gly Leu Pro Ser
 165 170 175
 Arg Met Leu Ile Val Pro Gly Gln Gly Gly Met Pro Gly Trp Gly Gly
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 Arg Gln Ala Ala Ala Arg Met Arg Ala Ser Asn Ser Gly Xaa Gly Gly
 195 200 205
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 Gly Cys
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<210> 5117
 <211> 1180
 <212> DNA
 <213> Homo sapiens

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<210> 5118

<211> 300

<212> PRT

<213> Homo sapiens

<400> 5118

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			20					25					30		
Ile	Phe	Asp	Ser	Arg	Ile	Ala	Ala	Gln	Ala	Val	Thr	Lys	Asn	Cys	Gln
		35				40					45				
Lys	Ala	Ser	Arg	Glu	Trp	Gln	Gly	Arg	Asp	Leu	Leu	Val	Val	Asp	Thr
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Pro	Gly	Leu	Phe	Asp	Thr	Lys	Glu	Ser	Leu	Asp	Thr	Thr	Cys	Lys	Glu

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Leu Val Leu Leu Leu Gly Arg Tyr Thr Glu Glu Glu Gln Lys Thr Val						
	100		105		110	
Ala Leu Ile Lys Ala Val Phe Gly Lys Ser Ala Met Lys His Met Val						
	115		120		125	
Ile Leu Phe Thr Arg Lys Glu Glu Leu Glu Gly Gln Ser Phe His Asp						
	130		135		140	
Phe Ile Ala Asp Ala Asp Val Gly Leu Lys Ser Ile Val Lys Glu Cys						
145		150		155		160
Gly Asn Arg Cys Cys Ala Phe Ser Asn Ser Lys Lys Thr Ser Lys Ala						
	165		170		175	
Glu Lys Glu Ser Gln Val Gln Glu Leu Val Glu Leu Ile Glu Lys Met						
	180		185		190	
Val Gln Cys Asn Glu Gly Ala Tyr Phe Ser Asp Asp Ile Tyr Lys Asp						
	195		200		205	
Thr Glu Glu Arg Leu Lys Gln Arg Glu Glu Val Leu Arg Lys Ile Tyr						
	210		215		220	
Thr Asp Gln Leu Asn Glu Ile Lys Leu Val Glu Glu Asp Lys His						
225		230		235		240
Lys Ser Glu Glu Glu Lys Glu Lys Glu Ile Lys Leu Leu Lys Leu Lys						
	245		250		255	
Tyr Asp Glu Lys Ile Lys Asn Ile Arg Glu Glu Ala Glu Arg Asn Ile						
	260		265		270	
Phe Lys Asp Val Phe Asn Arg Ile Trp Lys Met Leu Ser Glu Ile Trp						
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<210> 5119
 <211> 1450
 <212> DNA
 <213> Homo sapiens

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<210> 5120
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 <213> Homo sapiens

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 Ser Leu Lys Asp Pro Lys Leu His Ile Pro Met Tyr Phe Phe Leu Ser
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 Asn Leu Ser Leu Val Asp Leu Cys Leu Thr Ser Ser Cys Val Pro Gln
 65 70 75 80
 Met Leu Ile Asn Phe Trp Gly Pro Glu Lys Thr Ile Ser Tyr Ile Gly
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 Cys Ala Ile Gln Leu Tyr Val Phe Leu Trp Leu Gly Ala Thr Glu Tyr
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 Val Leu Leu Val Val Met Ala Val Asp Cys Tyr Val Ala Val Cys His

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Pro Ala Thr Leu Arg Leu Pro Phe Cys Ser Gln Arg Met Val Asp Asp
      165      170      175
Val Val Cys Glu Val Pro Ala Leu Ile Gln Leu Ser Ser Thr Asp Thr
      180      185      190
Thr Tyr Ser Glu Ile Gln Met Ser Ile Ala Ser Val Val Leu Leu Val
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Met Pro Leu Ile Ile Ile Leu Ser Ser Ser Gly Ala Ile Ala Lys Ala
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Val Leu Arg Ile Lys Ser Thr Ala Gly Gln Lys Lys Ala Phe Gly Thr
225      230      235      240
Cys Ile Ser His Leu Leu Val Val Ser Leu Phe Tyr Gly Thr Val Thr
      245      250      255
Gly Val Tyr Leu Gln Pro Lys Asn His Tyr Pro His Glu Trp Gly Lys
      260      265      270
Phe Leu Thr Leu Phe Tyr Thr Val Val Thr Pro Thr Leu Asn Pro Leu
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<212> PRT

<213> Homo sapiens

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Gly	Ala	Gln	Cys	Asp	Lys	Pro	Asn	Lys	Glu	Phe	Met	Leu	Cys	Arg	Trp
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Glu	Glu	Lys	Asp	Pro	Arg	Arg	Cys	Leu	Glu	Glu	Gly	Lys	Leu	Val	Asn
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Thr	Lys	Val	Lys	Thr	Asp	Arg	Pro	Leu	Pro	Glu	Asn	Pro	Tyr	His	Ser
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Arg	Pro	Arg	Pro	Asp	Pro	Ser	Pro	Glu	Ile	Glu	Gly	Asp	Leu	Gln	Pro
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<212> DNA

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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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 <213> Homo sapiens

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 35 40 45
 Glu Ile Leu Cys Met Gln Pro Thr Gly Lys Arg Pro Pro Gly Ser Gln
 50 55 60
 Asp Phe Ser Phe Ser Cys Leu Cys Pro Ala Thr Cys Ser Leu Pro Leu
 65 70 75 80
 Phe Arg Cys Gln Arg Gly Asp Phe Arg Ala Val Cys Phe Asn Pro Gly
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 <212> DNA
 <213> Homo sapiens

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745

<210> 5130
<211> 111
<212> PRT
<213> Homo sapiens

<400> 5130
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1 5 10 15
Trp Ala Leu Ala Gly Ala Arg Gln Leu Phe Leu Ala Pro Gln Gln Ile
20 25 30
Ser Arg Gln Leu His Phe Arg Leu Leu Glu Glu Arg Gln Gly Val Gly
35 40 45
Gly Val Gly Leu Ser Ala Lys Gly Gly Lys His Pro Gln Asp Arg Asn
50 55 60
Leu Ala Ala Val Gly Pro Glu Val Gln Ala Cys Gly Trp Ala Arg Pro
65 70 75 80
Asp Pro Ala Cys Ala Gly Gly Gln Val Ala Gly Gly Gly Glu Pro Gly

<400> 5132															
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1				5					10					15	
Ile	Gly	Glu	Val	Leu	Val	Ser	Val	Asn	Pro	Tyr	Gln	Glu	Leu	Pro	Leu
			20					25					30		
Tyr	Gly	Pro	Glu	Ala	Ile	Ala	Gln	Tyr	Gln	Gly	Arg	Glu	Leu	Tyr	Glu
		35					40					45			
Arg	Pro	Pro	His	Leu	Tyr	Ala	Val	Ala	Asn	Ala	Ala	Tyr	Lys	Ala	Met
	50					55					60				
Lys	His	Arg	Ser	Arg	Asp	Thr	Cys	Ile	Val	Ile	Ser	Gly	Glu	Ser	Gly

65		70		75		80									
Ala	Gly	Lys	Thr	Glu	Ala	Ser	Lys	His	Ile	Met	Gln	Tyr	Ile	Ala	Ala
		85							90					95	
Val	Thr	Asn	Pro	Ser	Gln	Arg	Ala	Glu	Val	Glu	Arg	Val	Lys	Asp	Val
		100						105					110		
Leu	Leu	Lys	Ser	Thr	Cys	Val	Leu	Glu	Ala	Phe	Gly	Asn	Ala	Arg	Thr
		115					120					125			
Asn	Arg	Asn	His	Asn	Ser	Ser	Arg	Phe	Gly	Lys	Tyr	Met	Asp	Ile	Asn
		130				135					140				
Phe	Asp	Phe	Lys	Gly	Asp	Pro	Ile	Gly	Gly	His	Ile	His	Ser	Tyr	Leu
		145			150					155					160
Leu	Glu	Lys	Ser	Arg	Val	Leu	Lys	Gln	His	Val	Gly	Glu	Arg	Asn	Phe
		165						170					175		
His	Ala	Phe	Tyr	Gln	Leu	Leu	Arg	Gly	Ser	Glu	Asp	Lys	Gln	Leu	His
		180					185						190		
Glu	Leu	His	Leu	Glu	Arg	Asn	Pro	Ala	Val	Tyr	Asn	Phe	Thr	His	Gln
		195				200					205				
Gly	Ala	Gly	Leu	Asn	Met	Thr	Val	His	Ser	Ala	Leu	Asp	Ser	Asp	Glu
		210				215					220				
Gln	Ser	His	Gln	Ala	Val	Thr	Glu	Ala	Met	Arg	Val	Ile	Gly	Phe	Ser
		225			230					235					240
Pro	Glu	Glu	Val	Glu	Ser	Val	His	Arg	Ile	Leu	Ala	Ala	Ile	Leu	His
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<210> 5133

<211> 581

<212> DNA

<213> Homo sapiens

<400> 5133

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480
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581

<210> 5134

<211> 157
 <212> PRT
 <213> Homo sapiens

<400> 5134
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 Gly Phe Trp Lys Arg Pro Pro Gln Arg Trp Ser Gly Gln Glu His Tyr
 20 25 30
 His Leu Ser His Pro Asp His Tyr His His His Gly Lys Ser Asp Leu
 35 40 45
 Ser Arg Gly Ser Pro Tyr Arg Glu Ser Pro Leu Gly His Phe Glu Ser
 50 55 60
 Tyr Gly Gly Met Pro Phe Phe Gln Ala Gln Lys Met Phe Val Asp Val
 65 70 75 80
 Pro Glu Asn Thr Val Ile Leu Asp Glu Met Thr Leu Arg His Met Val
 85 90 95
 Gln Asp Cys Thr Ala Val Lys Thr Gln Leu Leu Lys Leu Lys Arg Leu
 100 105 110
 Leu His Gln His Asp Gly Ser Gly Ser Leu His Asp Ile Gln Leu Ser
 115 120 125
 Leu Pro Ser Ser Pro Glu Pro Glu Asp Gly Asp Lys Val Tyr Lys Asn
 130 135 140
 Glu Asp Leu Leu Asn Glu Ile Lys Gln Leu Lys Asp Glu
 145 150 155

<210> 5135
 <211> 1696
 <212> DNA
 <213> Homo sapiens

<400> 5135
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<210> 5136

<211> 341

<212> PRT

<213> Homo sapiens

<400> 5136

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				20				25					30		
Gly	Leu	Leu	Ser	Gly	Gly	Leu	Pro	Arg	Lys	Cys	Ser	Val	Phe	His	Leu
				35			40					45			
Phe	Val	Ala	Cys	Leu	Ser	Leu	Gly	Phe	Phe	Ser	Leu	Leu	Trp	Leu	Gln
				50		55				60					
Leu	Ser	Cys	Ser	Gly	Asp	Val	Ala	Arg	Ala	Val	Arg	Gly	Gln	Gly	Gln
65				70				75					80		
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<210> 5137
<211> 3090
<212> DNA
<213> Homo sapiens
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420
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<210> 5140

<211> 443

<212> PRT

<213> Homo sapiens

<400> 5140

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 20           25           30
Asn His Thr Gly Glu Leu Leu Ala Thr Gly Asp Lys Gly Gly Arg Val
 35           40           45
Val Ile Phe Gln Arg Glu Gln Glu Ser Lys Asn Gln Val His Arg Arg
 50           55           60
Gly Glu Tyr Asn Val Tyr Ser Thr Phe Gln Ser His Glu Pro Glu Phe
 65           70           75           80
Asp Tyr Leu Lys Ser Leu Glu Ile Glu Glu Lys Ile Asn Lys Ile Arg
 85           90           95
Trp Leu Pro Gln Gln Asn Ala Ala Tyr Phe Leu Leu Ser Thr Asn Asp
 100          105          110
Lys Thr Val Lys Leu Trp Lys Val Ser Glu Arg Asp Lys Arg Pro Glu
 115          120          125
Gly Tyr Asn Leu Lys Asp Glu Glu Gly Arg Leu Arg Asp Pro Ala Thr
 130          135          140
Ile Thr Thr Leu Arg Val Pro Val Leu Arg Pro Met Asp Leu Met Val
 145          150          155          160
Glu Ala Thr Pro Arg Arg Val Phe Ala Asn Ala His Thr Tyr His Ile
 165          170          175
Asn Ser Ile Ser Val Asn Ser Asp Tyr Glu Thr Tyr Met Ser Ala Asp
 180          185          190
Asp Leu Arg Ile Asn Leu Trp Asn Phe Glu Ile Thr Asn Gln Ser Phe
 195          200          205
Asn Ile Val Asp Ile Lys Pro Ala Asn Met Glu Glu Leu Thr Glu Val
 210          215          220
Ile Thr Ala Ala Glu Phe His Pro His His Cys Asn Thr Phe Val Tyr
 225          230          235          240
Ser Ser Ser Lys Gly Thr Ile Arg Leu Cys Asp Met Arg Ala Ser Ala
 245          250          255
Leu Cys Asp Arg His Thr Lys Phe Phe Glu Glu Pro Glu Asp Pro Ser
 260          265          270
Asn Arg Ser Phe Phe Ser Glu Ile Ile Ser Ser Ile Ser Asp Val Lys
 275          280          285
Phe Ser His Ser Gly Arg Tyr Ile Met Thr Arg Asp Tyr Leu Thr Val
 290          295          300
Lys Val Trp Asp Leu Asn Met Glu Ser Arg Pro Val Glu Thr His Gln
 305          310          315          320
Val His Asp Tyr Leu Arg Ser Lys Leu Cys Ser Leu Tyr Glu Asn Asp
 325          330          335
Cys Ile Phe Asp Lys Phe Glu Cys Val Trp Asn Gly Ser Asp Ser Val
 340          345          350
Ile Met Thr Gly Ser Tyr Asn Asn Phe Phe Arg Met Phe Asp Arg Asp

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355	360	365
Thr Lys Arg Asp Val Thr	Leu Glu Ala Ser Arg	Glu Asn Ser Lys Pro
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Arg Ala Ile Leu Lys Pro	Arg Lys Val Cys Val	Gly Gly Lys Arg Arg
385	390	395
Lys Asp Glu Ile Ser Val	Asp Ser Leu Asp Phe	Ser Lys Lys Ile Leu
405	410	415
His Thr Ala Trp His Pro	Val Asp Asn Val Ile	Ala Val Ala Ala Thr
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Asn Asn Leu Tyr Ile Phe	Gln Asp Lys Ile Asn	
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<210> 5141
 <211> 928
 <212> DNA
 <213> Homo sapiens

<400> 5141
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<210> 5142
 <211> 227
 <212> PRT

<213> Homo sapiens

<400> 5142

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Pro Leu Val Val Asn Val Leu Glu Asn Leu Asp Ser Val Leu Ser Glu
      35             40             45
Asn Gln Glu His Glu Val Glu Leu Glu Leu Leu Arg Glu Asp Asn Glu
      50             55             60
Gln Leu Leu Thr Gln Tyr Glu Arg Glu Lys Ala Leu Arg Arg Gln Ala
      65             70             75             80
Glu Glu Lys Phe Ile Glu Phe Glu Asp Ala Leu Glu Gln Glu Lys Lys
      85             90             95
Glu Leu Gln Ile Gln Val Glu His Tyr Glu Phe Gln Thr Arg Gln Leu
      100            105            110
Glu Leu Lys Ala Lys Asn Tyr Ala Asp Gln Ile Ser Arg Leu Glu Glu
      115            120            125
Arg Glu Ser Glu Met Lys Lys Glu Tyr Asn Ala Leu His Gln Arg His
      130            135            140
Thr Glu Met Ile Gln Thr Tyr Val Glu His Ile Glu Arg Ser Lys Met
      145            150            155            160
Gln Gln Val Gly Gly Asn Ser Gln Thr Glu Ser Ser Leu Pro Gly Arg
      165            170            175
Ser Arg Lys Glu Arg Pro Thr Ser Leu Asn Val Phe Pro Leu Ala Asp
      180            185            190
Gly Thr Val Arg Ala Gln Ile Gly Gly Lys Leu Val Pro Ala Gly Asp
      195            200            205
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Gln Val Leu
225

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<210> 5143

<211> 1666

<212> DNA

<213> Homo sapiens

<400> 5143

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240
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420

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<210> 5144

<211> 218

<212> PRT

<213> Homo sapiens

<400> 5144

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Phe	Glu	Ser	Ala	Val	Gln	Glu	Asn	Ile	Ser	Ile	Asn	Gly	Gln	Ala	Trp
				20				25					30		
Gln	Glu	Ala	Ser	Asp	Asn	Cys	Phe	Met	Asp	Ser	Asp	Ile	Lys	Val	Leu

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Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys
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Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala
  65              70              75              80
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
      85              90              95
Leu Lys Tyr Asp Pro Asp Pro Ala Pro His Met Glu Asn Leu Lys Cys
      100              105              110
Arg Gly Glu Thr Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu
      115              120              125
Pro Ala Leu Ile Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met
      130              135              140
Gln Pro Val Ile His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser
      145              150              155              160
Cys His Arg Lys Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile
      165              170              175
Glu Thr Thr Pro Thr Glu Thr Ala Ser Arg Lys Thr Ser Asp Met Val
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Leu Lys Arg Lys Gln Thr Lys Asp Cys Pro Gln Arg Lys Trp Tyr Pro
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Leu Arg Pro Lys Lys Ile Asn Leu Asp Thr
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<210> 5145
 <211> 1885
 <212> DNA
 <213> Homo sapiens

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720

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 1885

<210> 5146

<211> 312

<212> PRT

<213> Homo sapiens

<400> 5146

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		20						25					30		
Arg	Leu	Gly	Val	Cys	Thr	Gly	Leu	Ala	Cys	Ala	Tyr	His	Leu	Leu	Cys
		35					40					45			
Thr	Pro	Pro	Thr	Pro	Cys	Ile	Pro	Thr	Pro	Gly	Leu	Val	Ala	Pro	Ala

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Leu Gly Lys Val Ser Pro	Cys Ala Cys Thr Arg	Arg Gln Thr Glu Lys			
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Ala Ala Gly Gly Leu Cys	Cys Ser Ala Arg Gly	Ser Ala Leu Pro Pro			
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Ser Phe Leu Leu Leu Ile	Ala Pro Val Cys Gly	Ala Tyr Thr Pro Thr			
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Ser Cys Asn Lys Ile Val	Ala Ser Ala Lys Lys	Pro Gly Ile Arg Thr			
	115	120	125		
Gly Ile Gln Gly Leu Lys	Gly Asp Gln Gly Glu	Pro Gly Pro Ser Gly			
	130	135	140		
Asn Pro Gly Lys Val Gly	Tyr Pro Gly Pro Ser	Gly Pro Leu Gly Ala			
	145	150	155		160
Arg Gly Ile Pro Gly Ile	Lys Gly Thr Lys Gly	Ser Pro Gly Asn Ile			
	165	170	175		
Lys Asp Gln Pro Arg Pro	Ala Phe Ser Ala Ile	Arg Arg Asn Pro Pro			
	180	185	190		
Met Gly Gly Asn Val Val	Ile Phe Asp Thr Val	Ile Thr Asn Gln Glu			
	195	200	205		
Glu Pro Tyr Gln Asn His	Ser Gly Arg Phe Val	Cys Thr Val Pro Gly			
	210	215	220		
Tyr Tyr Tyr Phe Thr Phe	Gln Val Leu Ser Gln	Trp Glu Ile Cys Leu			
	225	230	235		240
Ser Ile Val Ser Ser Arg	Gly Gln Val Arg Arg	Ser Leu Gly Phe			
	245	250	255		
Cys Asp Thr Thr Asn Lys	Gly Leu Phe Gln Val	Val Ser Gly Gly Met			
	260	265	270		
Val Leu Gln Leu Gln Gln	Gly Asp Gln Val Trp	Val Glu Lys Asp Pro			
	275	280	285		
Lys Lys Gly His Ile Tyr	Gln Gly Ser Glu Ala	Asp Ser Val Phe Ser			
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<210> 5147

<211> 2943

<212> DNA

<213> Homo sapiens

<400> 5147

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<210> 5148

<211> 296

<212> PRT

<213> Homo sapiens

<400> 5148

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 35 40 45
 Ile Arg Glu Ser Arg Leu Phe Gly Ala Val Val Arg Trp Ala Glu Ala
 50 55 60
 Glu Cys Gln Arg Gln Gln Leu Pro Val Thr Phe Gly Asn Lys Gln Lys
 65 70 75 80
 Val Leu Gly Lys Ala Leu Ser Leu Ile Arg Phe Pro Leu Met Thr Ile
 85 90 95
 Glu Glu Phe Ala Ala Gly Pro Ala Gln Ser Gly Ile Leu Ser Asp Arg
 100 105 110
 Glu Val Val Asn Leu Phe Leu His Phe Thr Val Asn Pro Lys Pro Arg

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      115      120      125
Val Glu Tyr Ile Asp Arg Pro Arg Cys Cys Leu Arg Gly Lys Glu Cys
      130      135      140
Cys Ile Asn Arg Phe Gln Gln Val Glu Ser Arg Trp Gly Tyr Ser Gly
145      150      155      160
Thr Ser Asp Arg Ile Arg Phe Thr Val Asn Arg Arg Ile Ser Ile Val
      165      170      175
Gly Phe Gly Leu Tyr Gly Ser Ile His Gly Pro Thr Asp Tyr Gln Val
      180      185      190
Asn Ile Gln Ile Ile Glu Tyr Glu Lys Lys Gln Thr Leu Gly Gln Asn
      195      200      205
Asp Thr Gly Phe Ser Cys Asp Gly Thr Ala Asn Thr Phe Arg Val Met
      210      215      220
Phe Lys Glu Pro Ile Glu Ile Leu Pro Asn Val Cys Tyr Thr Ala Cys
225      230      235      240
Ala Thr Leu Lys Gly Pro Asp Ser His Tyr Gly Thr Lys Gly Leu Lys
      245      250      255
Lys Val Val His Glu Thr Pro Ala Ala Ser Lys Thr Val Phe Phe Phe
      260      265      270
Phe Ser Ser Pro Gly Asn Asn Asn Gly Thr Ser Ile Glu Asp Gly Gln
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<210> 5149

<211> 533

<212> DNA

<213> Homo sapiens

<400> 5149

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<210> 5150

<211> 154

<212> PRT

<213> Homo sapiens

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 35 40 45
 His Arg Arg Glu Glu Glu Ala Met Lys Gln Ile Thr Gln Leu Leu Pro
 50 55 60
 Glu Asp Leu Arg Lys Glu Leu Tyr Glu Leu Trp Glu Glu Tyr Glu Thr
 65 70 75 80
 Gln Ser Ser Ala Glu Ala Lys Phe Val Lys Gln Leu Asp Gln Cys Glu
 85 90 95
 Met Ile Leu Gln Ala Ser Glu Tyr Glu Asp Leu Glu His Lys Pro Gly
 100 105 110
 Arg Leu Gln Asp Phe Tyr Asp Ser Thr Ala Gly Lys Phe Asn His Pro
 115 120 125
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<210> 5151
 <211> 2273
 <212> DNA
 <213> Homo sapiens

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<210> 5152

<211> 324

<212> PRT

<213> Homo sapiens

<400> 5152

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Lys Leu Ser Arg Ala Tyr Asp Gly Thr Thr Tyr Leu Pro Gly Ile Val
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Gly Leu Asn Asn Ile Lys Ala Asn Asp Tyr Ala Asn Ala Val Leu Gln
65           70           75           80
Ala Leu Ser Asn Val Pro Pro Leu Arg Asn Tyr Phe Leu Glu Glu Asp
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Asn Tyr Lys Asn Ile Lys Arg Pro Pro Gly Asp Ile Met Phe Leu Leu
          100          105          110
Val Gln Arg Phe Gly Glu Leu Met Arg Lys Leu Trp Asn Pro Arg Asn
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Phe Lys Ala His Val Ser Pro His Glu Met Leu Gln Ala Val Val Leu
          130          135          140
Cys Ser Lys Lys Thr Phe Gln Ile Thr Lys Gln Gly Asp Gly Val Asp
145          150          155          160
Phe Leu Ser Trp Phe Leu Asn Ala Leu His Ser Ala Leu Gly Gly Thr
          165          170          175
Lys Lys Lys Lys Lys Thr Ile Val Thr Asp Val Phe Gln Gly Ser Met
          180          185          190
Arg Ile Phe Thr Lys Lys Leu Pro His Pro Asp Leu Pro Ala Glu Glu
          195          200          205
Lys Glu Gln Leu Leu His Asn Asp Glu Tyr Gln Glu Thr Met Val Glu
          210          215          220
Ser Thr Phe Met Tyr Leu Thr Leu Asp Leu Pro Thr Ala Pro Leu Tyr
225          230          235          240
Lys Asp Glu Lys Glu Gln Leu Ile Ile Pro Gln Val Pro Leu Phe Asn
          245          250          255
Ile Leu Ala Lys Phe Asn Gly Ile Thr Glu Lys Glu Tyr Lys Thr Tyr
          260          265          270
Lys Glu Asn Phe Leu Lys Arg Phe Gln Leu Thr Lys Leu Pro Pro Tyr
          275          280          285
Leu Ile Phe Cys Ile Lys Ile Phe Thr Lys Asn Asn Phe Phe Val Glu
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<210> 5153

<211> 640

<212> DNA

<213> Homo sapiens

<400> 5153

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 <212> PRT
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 35 40 45
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 Gln Gly Val Pro Phe Pro Gln Asn Glu Ala Asn Ala Met Asp Val Val
 65 70 75 80
 Val Gln Phe Ala Ile His Arg Leu Gly Phe Gln Pro Gln Asp Ile Ile
 85 90 95
 Ile Tyr Ala Trp Ser Ile Gly Gly Phe Thr Ala Thr Trp Ala Ala Met
 100 105 110
 Ser Tyr Pro Asp Val Ser Ala Met Ile Leu Asp Ala Ser Phe Asp Asp
 115 120 125
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<210> 5155
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<212> PRT

<213> Homo sapiens

<400> 5156

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Ser Gly Gly Leu Gln Trp Val Gln Leu Val Ala His Gly Ser Ala Gly
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Asp Asp Asn Gly Trp Leu Arg Cys His Arg Pro Pro Trp Gln Gly Leu
 50           55           60
Gly Asp Asn Glu Leu Asp Gly Cys Ser Gly Glu Val Asn Val Ser Gln
 65           70           75           80
Asp Phe Val Lys Thr Leu Leu Arg Ile Cys Asn Ala Ile Pro Ser Phe
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<211> 1310

<212> DNA

<213> Homo sapiens

<400> 5157

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840

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<400> 5158
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 35 40 45
 Thr His Arg Cys Ser Pro Ala Trp Leu Ser Trp Asp Leu Asn Leu Leu
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 Val Lys Ser Phe Ser Leu Ser Glu Val Pro Ser Leu Gln Met Leu Asn
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<210> 5159
 <211> 3233
 <212> DNA
 <213> Homo sapiens

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<211> 849

<212> PRT

<213> Homo sapiens

<400> 5160

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Ser	Glu	Leu	Arg	Lys	Asp	Ile	Tyr	Ile	Thr	Val	His	Ile	Ile	Arg	Ile	
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 515 520 525
 Tyr Gly Ser Lys Val Phe Asp Ser Leu Val His Ile Ile Asn Leu Leu
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 545 550 555 560
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 565 570 575
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 595 600 605
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 610 615 620
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 Ser Arg Tyr Ile Leu Leu Pro Val Val Leu His His Leu His Ile His
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 740 745 750
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<210> 5161

<211> 1645

<212> DNA

<213> Homo sapiens

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<210> 5162
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 5162
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 Lys Thr Gly Leu Arg Leu Arg Lys Val Asp Gln Gly Leu Phe Val Gln
 35 40 45
 Leu Val Gln Ala Asn Thr Pro Ala Ser Leu Val Gly Leu Arg Phe Gly
 50 55 60
 Asp Gln Leu Leu Gln Ile Asp Gly Arg Asp Cys Ala Gly Trp Ser Ser
 65 70 75 80
 His Lys Ala His Gln Val Val Lys Lys Ala Ser Gly Asp Lys Ile Val
 85 90 95
 Val Val Val Arg Asp Arg Pro Phe Gln Arg Thr Val Thr Met His Lys
 100 105 110
 Asp Ser Met Gly His Val Gly Phe Val Ile Lys Lys Gly Lys Ile Val
 115 120 125
 Ser Leu Val Lys Gly Ser Ser Ala Ala Cys Asn Gly Leu Leu Thr Asn
 130 135 140
 His Tyr Val Cys Glu Val Asp Gly Gln Asn Val Ile Gly Leu Lys Asp
 145 150 155 160
 Lys Lys Ile Met Glu Ile Leu Ala Thr Ala Gly Asn Val Val Thr Leu
 165 170 175
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 Pro Val Leu Leu His His Thr Met Asp His Ser Ile Pro Asp Ala
 195 200 205

<210> 5163
 <211> 1187
 <212> DNA
 <213> Homo sapiens

<400> 5163
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<210> 5164
 <211> 213
 <212> PRT
 <213> Homo sapiens

<400> 5164
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 35 40 45
 Gly Glu Pro Gln Gly Tyr Gly Val Met Glu Tyr Lys Ala Gly Gly Cys
 50 55 60
 Tyr Glu Gly Glu Val Ser His Gly Met Arg Glu Gly His Gly Phe Leu
 65 70 75 80
 Val Asp Arg Asp Gly Gln Val Tyr Gln Gly Ser Phe His Asp Asn Lys
 85 90 95
 Arg His Gly Pro Gly Gln Met Leu Phe Gln Asn Gly Asp Lys Tyr Asp
 100 105 110
 Gly Asp Trp Val Arg Asp Arg Arg Gln Gly His Gly Val Leu Arg Cys
 115 120 125
 Ala Asp Gly Ser Thr Tyr Lys Gly Gln Trp His Ser Asp Val Phe Ser

130		135		140
Gly Leu Gly Ser Met Ala His Cys Ser Gly Val Thr Tyr Tyr Gly Leu				
145		150		155
Trp Ile Asn Gly His Pro Ala Glu Gln Ala Thr Arg Ile Val Ile Leu				
	165		170	175
Gly Pro Glu Val Met Glu Val Ala Gln Gly Ser Pro Phe Ser Val Asn				
	180		185	190
Val Gln Leu Leu Gln Asp His Gly Glu Ile Ala Lys Ser Lys His Leu				
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<210> 5165
 <211> 2370
 <212> DNA
 <213> Homo sapiens

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<210> 5166

<211> 521

<212> PRT

<213> Homo sapiens

<400> 5166

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Ala	Asp	Arg	Arg	Ser	Leu	Pro	Gly	Thr	Trp	Thr	Arg	Ser	Ser	Pro	Glu						
										35			40				45				
His	Thr	Thr	Ile	Leu	Arg	Gly	Gly	Val	Arg	Arg	Cys	Leu	Gln	Gln	Gln						
										50			55				60				
Cys	Glu	Gln	Thr	Val	Arg	Ile	Leu	His	Ala	Lys	Val	Ala	Gln	Lys	Ser						
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Tyr	Gly	Asn	Glu	Lys	Arg	Phe	Phe	Cys	Pro	Pro	Pro	Cys	Val	Tyr	Leu						
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Ser	Gly	Pro	Gly	Trp	Arg	Val	Lys	Pro	Gly	Gln	Asp	Gln	Ala	His	Gln						
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Ala	Gly	Glu	Thr	Gly	Pro	Thr	Val	Cys	Gly	Tyr	Met	Gly	Leu	Asp	Ser						
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Ala	Ser	Gly	Ser	Ala	Thr	Glu	Thr	Gln	Lys	Leu	Asn	Phe	Glu	Gln	Gln						
										130			135				140				
Pro	Asp	Ser	Arg	Glu	Phe	Gly	Cys	Ala	Lys	Thr	Leu	Tyr	Ile	Ser	Asp						
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Ala	Asp	Lys	Arg	Lys	His	Phe	Arg	Leu	Val	Leu	Arg	Leu	Val	Leu	Arg						
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Gly	Gly	Arg	Glu	Leu	Gly	Thr	Phe	His	Ser	Arg	Leu	Ile	Lys	Val	Ile						
										180			185				190				
Ser	Lys	Pro	Ser	Gln	Lys	Lys	Gln	Ser	Leu	Lys	Asn	Thr	Asp	Leu	Cys						
										195			200				205				
Ile	Ser	Ser	Gly	Ser	Lys	Val	Ser	Leu	Phe	Asn	Arg	Leu	Arg	Ser	Gln						
										210			215				220				
Thr	Val	Ser	Thr	Arg	Tyr	Leu	Ser	Val	Glu	Asp	Gly	Ala	Phe	Val	Ala						
225											230			235				240			
Ser	Ala	Arg	Gln	Trp	Ala	Ala	Phe	Thr	Leu	His	Leu	Ala	Asp	Gly	His						
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Ser	Ala	Gln	Gly	Asp	Phe	Pro	Pro	Arg	Glu	Gly	Tyr	Val	Arg	Tyr	Gly						
										260			265				270				
Ser	Leu	Val	Gln	Leu	Val	Cys	Thr	Val	Thr	Gly	Ile	Thr	Leu	Pro	Pro						
										275			280				285				
Met	Ile	Ile	Arg	Lys	Val	Ala	Lys	Gln	Cys	Ala	Leu	Leu	Asp	Val	Asp						
										290			295				300				
Glu	Pro	Ile	Ser	Gln	Leu	His	Lys	Cys	Ala	Phe	Gln	Phe	Pro	Gly	Ser						
305											310			315				320			
Pro	Pro	Gly	Gly	Gly	Gly	Thr	Tyr	Leu	Cys	Leu	Ala	Thr	Glu	Lys	Val						
										325			330				335				
Val	Gln	Phe	Gln	Ala	Ser	Pro	Cys	Pro	Lys	Glu	Ala	Asn	Arg	Ala	Leu						
										340			345				350				
Leu	Asn	Asp	Ser	Ser	Cys	Trp	Thr	Ile	Ile	Gly	Thr	Glu	Ser	Val	Glu						
										355			360				365				
Phe	Ser	Phe	Ser	Thr	Ser	Leu	Ala	Cys	Thr	Leu	Glu	Pro	Val	Thr	Pro						
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Val	Pro	Leu	Ile	Ser	Thr	Leu	Glu	Leu	Ser	Gly	Gly	Asp	Val	Ala							
385											390			395				400			
Thr	Leu	Glu	Leu	His	Gly	Glu	Asn	Phe	His	Ala	Gly	Leu	Lys	Val	Trp						
										405			410								

450					455					460									
Arg	Ala	Asp	Gly	Leu	Phe	Tyr	Pro	Ser	Ala	Phe	Ser	Phe	Thr	Tyr	Thr				
465					470					475					480				
Pro	Glu	Tyr	Ser	Val	Arg	Pro	Gly	His	Pro	Gly	Val	Pro	Glu	Pro	Ala				
485					490					495									
Thr	Asp	Ala	Asp	Ala	Leu	Leu	Glu	Ser	Ile	His	Gln	Glu	Phe	Thr	Arg				
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Thr	Asn	Phe	His	Leu	Phe	Ile	Gln	Thr											
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<210> 5167
<211> 878
<212> DNA
<213> Homo sapiens
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ttggactgtg tgctgcagac acaatatccc aggtctatga gaattgtcaat acagacttca
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240
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720
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<210> 5168
<211> 199
<212> PRT
<213> Homo sapiens
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<400> 5168
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Ser Arg Ala Asp Cys Leu Gly Ala Pro Asn Ile Arg Thr Ala Pro Leu			
	35	40	45
Gly Arg Ser Glu Lys Arg Thr Ala Ile Cys Phe Ser Thr Gly Ala Gln			
	50	55	60
Asp Ser Ser Gln Arg Ala Pro Phe Arg Leu Gln Asn Pro Gly Gln Leu			
65	70	75	80
Leu Gln Thr Ser Val Arg Asn Leu Val Pro Ser Ile Leu His Thr Ser			
	85	90	95
Tyr His Ala Ile Phe Asn Pro Arg Thr Trp Val Leu Leu Cys Pro Cys			
	100	105	110
Asp Ile Trp Gly Thr Gln Gly Pro Glu Lys Gly Arg Lys Ile Thr His			
	115	120	125
Ala Gly Thr Leu Ser Pro Gln Val Lys Leu Arg Thr Gly Asn Gly Lys			
	130	135	140
Gln Gly Gly Ser Thr Glu Ala Gly Asn Ser Gly Val Ile Ala Trp Leu			
145	150	155	160
Ser Leu Glu Cys Thr Pro Ser Thr Ser Thr Gln Ser Ser Pro Gln Leu			
	165	170	175
Thr Leu Pro Ser Ser Ala Ser Ser Ile Ser Ser Arg Glu Thr Ile Leu			
	180	185	190
Ile Ala Ser Pro Phe Pro Thr			
195			

<210> 5169

<211> 609

<212> DNA

<213> Homo sapiens

<400> 5169

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609

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<210> 5170
 <211> 203
 <212> PRT
 <213> Homo sapiens

<400> 5170
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 35 40 45
 Leu Leu Leu Phe Thr Thr Ala Gly Ile Tyr Val Asp Gly Ala Gly Arg
 50 55 60
 Lys Ser Arg Gly His Glu Leu Leu Trp Pro Ala Ala Pro Met Gly Trp
 65 70 75 80
 Gly Tyr Ala Ala Pro Tyr Leu Thr Val Phe Ser Glu Asn Ser Ile Asp
 85 90 95
 Val Phe Asp Val Arg Arg Ala Glu Trp Val Gln Thr Val Pro Leu Lys
 100 105 110
 Lys Val Arg Pro Leu Asn Pro Glu Gly Ser Leu Phe Leu Tyr Gly Thr
 115 120 125
 Glu Lys Val Arg Leu Thr Tyr Leu Arg Asn Gln Leu Ala Glu Lys Asp
 130 135 140
 Glu Phe Asp Ile Pro Asp Leu Thr Asp Asn Ser Arg Arg Gln Leu Phe
 145 150 155 160
 Leu Thr Lys Ser Lys Arg Arg Phe Phe Phe Arg Val Ser Glu Glu Gln
 165 170 175
 Gln Lys Gln Gln Arg Arg Glu Met Leu Lys Asp Pro Phe Val Arg Ser
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 195 200

<210> 5171
 <211> 2060
 <212> DNA
 <213> Homo sapiens

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2060

<210> 5172

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5172

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      20             25             30
Gln Gly Ser Ile Lys Asp His Thr Ala Gly Leu Arg Leu Thr Ala Leu
      35             40             45
Ser Pro Glu His Gln Ser Pro Ala Glu Ser Gly Asp Asn Thr Ser Ser
      50             55             60
Leu Gln Arg Gly Thr Ser Pro Pro Ala Ala Thr Ser Leu Arg Leu Leu
65             70             75             80
Leu Ser Ser Lys Asp Ser Leu Gly Phe Lys Cys His Phe Pro Cys Phe
      85             90             95
Arg Asp Pro Gly Val Leu Ile Ala
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<210> 5173

<211> 557

<212> DNA

<213> Homo sapiens

<400> 5173

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atgtgctgca gacacaatat cccaggtcta tgagaatgtc aatacagact tcacgtggga
240
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<210> 5174

<211> 93

<212> PRT

<213> Homo sapiens

<400> 5174

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Glu Thr Lys Arg Ser Pro Leu Gly Thr Val Leu Ser Pro Gly Ala Glu
          35           40           45
Thr Asp Arg Gly Ser Leu Leu Gly Pro Pro Glu Lys Arg Cys Pro Asp
          50           55           60
Ile Trp Cys Ser Gln Ala Val Ser Pro Ala Gly Leu Cys Phe Pro Asp
65           70           75           80
Arg Gln Thr Ser Pro Ser Leu Ser Leu Ser Gly Lys Met
          85           90

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<210> 5175

<211> 272

<212> DNA

<213> Homo sapiens

<400> 5175

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<210> 5176

<211> 90

<212> PRT

<213> Homo sapiens

<400> 5176

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Ser Arg Glu Leu Arg Ser Gln Pro Ala Ser Leu Cys Val Ala His Asn
          20           25           30
Ser Cys Leu His Val Ser Arg Glu Gly Cys Pro Thr Pro Gly Arg Ala
          35           40           45
Ala Thr Pro Thr Pro Ser Pro Gly Thr Ala Ser Gln Arg Ser Leu Pro
          50           55           60
Cys Arg Thr Asp Arg Arg Glu Gly Ser Gly Glu Arg Cys Met Pro Pro
65           70           75           80
Gln Ala Cys Ser Glu Gly Pro Xaa Xaa Xaa
          85           90

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<210> 5177

<211> 637

<212> DNA

<213> Homo sapiens

<400> 5177

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480
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<212> PRT

<213> Homo sapiens

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20          25          30
Asn Ser Gln Ile Arg Ser Arg Ser Ser Ser Ser Ser Ser Gly Gly Gly
35          40          45
Leu Leu Pro Tyr Pro Arg Arg Arg Pro Pro His Ser Ala Arg Gly Gly
50          55          60
Gly Ser Gly Gly Gly Gly Gly Ser Ser Ser Ser Ser Ser Ser Ser Gln
65          70          75          80
Gln Gln Leu Arg Asn Phe Ser Arg Ser Arg His Ala
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<210> 5179

<211> 1527

<212> DNA

<213> Homo sapiens

<400> 5179

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<210> 5180

<211> 444

<212> PRT

<213> Homo sapiens

<400> 5180

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 35 40 45
 His Thr Glu Gly Lys Arg Tyr Phe Thr Trp Asp Lys Asn Arg Phe Pro
 50 55 60
 Asn Pro Lys Arg Met Gln Glu Leu Leu Arg Asn Lys Lys Arg Lys Leu
 65 70 75 80
 Val Val Ile Ser Asp Pro His Ile Lys Ile Glu Pro Asp Tyr Ser Val
 85 90 95
 Tyr Val Lys Ala Lys Asp Gln Gly Phe Phe Val Lys Asn Gln Glu Gly
 100 105 110
 Glu Asp Phe Glu Gly Val Cys Trp Pro Gly Leu Ser Ser Tyr Leu Asp
 115 120 125
 Phe Thr Asn Pro Lys Val Arg Glu Trp Tyr Ser Ser Leu Phe Ala Phe
 130 135 140
 Pro Val Tyr Gln Gly Ser Thr Asp Ile Leu Phe Leu Trp Asn Asp Met
 145 150 155 160
 Asn Glu Pro Ser Val Phe Arg Gly Pro Glu Gln Thr Met Gln Lys Asn
 165 170 175
 Ala Ile His His Gly Asn Trp Glu His Arg Glu Leu His Asn Ile Tyr
 180 185 190
 Gly Phe Tyr His Gln Met Ala Thr Ala Glu Gly Leu Ile Lys Arg Ser
 195 200 205
 Lys Gly Lys Glu Arg Pro Phe Val Leu Thr Arg Ser Phe Phe Ala Gly
 210 215 220
 Ser Gln Lys Tyr Gly Ala Val Trp Thr Gly Asp Asn Thr Ala Glu Trp
 225 230 235 240
 Ser Asn Leu Lys Ile Ser Ile Pro Met Leu Leu Thr Leu Ser Ile Thr
 245 250 255
 Gly Ile Ser Phe Cys Gly Ala Asp Ile Gly Gly Phe Ile Gly Asn Pro
 260 265 270
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 275 280 285
 Phe Phe Arg Gly His Ala Thr Met Asn Thr Lys Arg Arg Glu Pro Trp
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 305 310 315 320
 Arg Tyr Gly Leu Leu Pro Tyr Trp Tyr Ser Leu Phe Tyr His Ala His
 325 330 335
 Val Ala Ser Gln Pro Val Met Arg Pro Leu Trp Val Glu Phe Pro Asp
 340 345 350
 Glu Leu Lys Thr Phe Asp Met Glu Asp Glu Tyr Met Leu Gly Ser Ala
 355 360 365
 Leu Leu Val His Pro Val Thr Glu Pro Lys Ala Thr Thr Val Asp Val
 370 375 380
 Phe Leu Pro Gly Ser Asn Glu Val Trp Tyr Asp Tyr Lys Thr Phe Ala
 385 390 395 400
 His Trp Glu Gly Gly Cys Thr Val Lys Ile Pro Val Ala Leu Asp Thr

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<211> 697

<212> PRT

<213> Homo sapiens

<400> 5182

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Met	Gly	Ala	Leu	Ala	Ala	Ile	Leu	Ala	Tyr	Trp	Phe	Thr	His	Arg	Pro
		35					40					45			
Lys	Ala	Leu	Gln	Pro	Pro	Cys	Asn	Leu	Leu	Met	Gln	Ser	Glu	Glu	Val
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Glu	Asp	Ser	Gly	Gly	Ala	Arg	Arg	Ser	Val	Ile	Gly	Ser	Gly	Pro	Gln
65					70					75				80	
Leu	Leu	Thr	His	Tyr	Tyr	Asp	Asp	Ala	Arg	Thr	Met	Tyr	Gln	Val	Phe
			85					90						95	
Arg	Arg	Gly	Leu	Ser	Ile	Ser	Gly	Asn	Gly	Pro	Cys	Leu	Gly	Phe	Arg
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Lys	Pro	Lys	Gln	Pro	Tyr	Gln	Trp	Leu	Ser	Tyr	Gln	Glu	Val	Ala	Asp
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Ile	Leu	Met	Asp	Pro	Phe	Glu	Glu	Ala	Leu	Lys	Glu	Arg	Gly	Gln	Lys
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Cys	Gly	Val	Val	Ile	Lys	Ser	Met	Gln	Ala	Val	Glu	Asp	Cys	Gly	Gln

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 690 695

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 <211> 2466
 <212> DNA
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 1620
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 2340
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<210> 5184

<211> 395

<212> PRT

<213> Homo sapiens

<400> 5184

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			20					25						30	
Asp	Asp	Ala	Phe	Ile	Asn	Pro	His	Leu	Ala	Lys	Ile	Phe	Glu	Arg	Val
		35					40					45			
Arg	Gln	Ser	Ala	Asp	Phe	Met	Pro	Leu	Lys	Gln	Met	Met	Lys	Thr	Leu

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      50              55              60
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Glu Arg Pro Phe Ala Ala Ala Ser Ile Gly Gln Val His Leu Ala Arg
      85              90              95
Met Lys Gly Gly Arg Glu Val Ala Met Lys Ile Gln Tyr Pro Gly Val
      100              105              110
Ala Gln Ser Ile Asn Ser Asp Val Asn Asn Leu Met Ala Val Leu Asn
      115              120              125
Met Ser Asn Met Leu Pro Glu Gly Leu Phe Pro Glu His Leu Ile Asp
      130              135              140
Val Leu Arg Arg Glu Leu Ala Leu Glu Cys Asp Tyr Gln Arg Glu Ala
145              150              155              160
Ala Cys Ala Arg Lys Phe Arg Asp Leu Leu Lys Gly His Pro Phe Phe
      165              170              175
Tyr Val Pro Glu Ile Val Asp Glu Leu Cys Ser Pro His Val Leu Thr
      180              185              190
Thr Glu Leu Val Ser Gly Phe Pro Leu Asp Gln Ala Glu Gly Leu Ser
      195              200              205
Gln Glu Ile Arg Asn Glu Ile Cys Tyr Asn Ile Leu Val Leu Cys Leu
      210              215              220
Arg Glu Leu Phe Glu Phe His Phe Met Gln Thr Asp Pro Asn Trp Ser
225              230              235              240
Asn Phe Phe Tyr Asp Pro Gln Gln His Lys Val Ala Leu Leu Asp Phe
      245              250              255
Gly Ala Thr Arg Glu Tyr Asp Arg Ser Phe Thr Asp Leu Tyr Ile Gln
      260              265              270
Ile Ile Arg Ala Ala Ala Asp Arg Asp Arg Glu Thr Val Arg Ala Lys
      275              280              285
Ser Ile Glu Met Lys Phe Leu Thr Gly Tyr Glu Val Lys Val Met Glu
      290              295              300
Asp Ala His Leu Asp Ala Ile Leu Ile Leu Gly Glu Ala Phe Ala Ser
305              310              315              320
Asp Glu Pro Phe Asp Phe Gly Thr Gln Ser Thr Thr Glu Lys Ile His
      325              330              335
Asn Leu Ile Pro Val Met Leu Arg His Arg Leu Val Pro Pro Pro Glu
      340              345              350
Glu Thr Tyr Ser Leu His Arg Lys Met Gly Gly Ser Phe Leu Ile Cys
      355              360              365
Ser Lys Leu Lys Ala Arg Phe Pro Cys Lys Ala Met Phe Glu Glu Ala
      370              375              380
Tyr Ser Asn Tyr Cys Lys Arg Gln Ala Gln Gln
385              390              395

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<210> 5185

<211> 1657

<212> DNA

<213> Homo sapiens

<400> 5185

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120

cggtattccca tgagaaactc tctggatcta gttcctctac gtcacatgag tgtgcaaaca
180
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240
tcacttgttt cacagatctc actctgtcac ccaggctgga gtacagtggg gcgatctcaa
300
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420
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480
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540
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600
aaggagctct atgaactttg ggaagagtac gagaccaat ctagtgcaga agccaaattt
660
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720
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780
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1080
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1140
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1260
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1560
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1657

<210> 5186

<211> 243
 <212> PRT
 <213> Homo sapiens

<400> 5186
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 Thr Gly Asp Tyr Lys Ser Leu Lys Ile Leu Gly Leu Leu Glu Ile Ser
 20 25 30
 Leu Ala Ile Tyr Ser Ser Leu Val Ser Gln Ile Ser Leu Cys His Pro
 35 40 45
 Gly Trp Ser Thr Val Val Arg Ser Gln Leu Thr Ala Thr Ser Ala Ser
 50 55 60
 Arg Phe Lys Arg Phe Ala Cys Leu Cys Leu Ser Tyr Val Pro Phe Arg
 65 70 75 80
 Lys Ile Leu Leu Glu Lys Ile Trp Phe Gln Asp Val Ser Trp Thr
 85 90 95
 Gly Gly His Val Pro Arg Val Pro Arg Thr Gly Trp Val Tyr Arg Asn
 100 105 110
 Val Gln Arg Pro Glu Ser Val Ser Asp His Met Tyr Arg Met Ala Val
 115 120 125
 Met Ala Met Val Ile Lys Asp Asp Arg Leu Asn Lys Asp Xaa Glu Ala
 130 135 140
 Met Lys Gln Ile Thr Gln Leu Leu Pro Glu Asp Leu Arg Lys Glu Leu
 145 150 155 160
 Tyr Glu Leu Trp Glu Glu Tyr Glu Thr Gln Ser Ser Ala Glu Ala Lys
 165 170 175
 Phe Val Lys Gln Leu Asp Gln Cys Glu Met Ile Leu Gln Ala Ser Glu
 180 185 190
 Tyr Glu Asp Leu Glu His Lys Pro Gly Arg Leu Gln Asp Phe Tyr Asp
 195 200 205
 Ser Thr Ala Gly Lys Phe Asn His Pro Glu Ile Val Gln Leu Val Ser
 210 215 220
 Glu Leu Glu Ala Glu Arg Ser Thr Asn Ile Ala Ala Ala Ser Glu
 225 230 235 240
 Pro His Ser

<210> 5187
 <211> 1712
 <212> DNA
 <213> Homo sapiens

<400> 5187
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 180
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 240
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 300

ggctccgtgtg aaaaaattca tgatgaaaat ctacgaaaac agtatgagaa gagctctcgt
 360
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 420
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 660
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 720
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 780
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 1020
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 1620
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 1680
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 1712

<210> 5188

<211> 489

<212> PRT

<213> Homo sapiens

<400> 5188

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      20           25           30
Ser Val Cys Lys Tyr Tyr Leu Cys Gly Phe Cys Pro Ala Glu Leu Phe
      35           40           45
Thr Asn Thr Arg Ser Asp Leu Gly Pro Cys Glu Lys Ile His Asp Glu
      50           55           60
Asn Leu Arg Lys Gln Tyr Glu Lys Ser Ser Arg Phe Met Lys Val Gly
      65           70           75           80
Tyr Glu Arg Asp Phe Leu Arg Tyr Leu Gln Ser Leu Leu Ala Glu Val
      85           90           95
Glu Arg Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn
      100          105          110
Gln Gln Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Glu Glu Lys
      115          120          125
Ile Gln Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu
      130          135          140
Glu Leu Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys
      145          150          155          160
Leu Val Glu Gln Leu Lys Glu Glu Arg Glu Leu Leu Arg Ser Thr Thr
      165          170          175
Ser Thr Ile Glu Ser Phe Ala Ala Gln Glu Lys Gln Met Glu Val Cys
      180          185          190
Glu Val Cys Gly Ala Phe Leu Ile Val Gly Asp Ala Gln Ser Arg Val
      195          200          205
Asp Asp His Leu Met Gly Lys Gln His Met Gly Tyr Ala Lys Ile Lys
      210          215          220
Ala Thr Val Glu Glu Leu Lys Glu Lys Leu Arg Lys Arg Thr Glu Glu
      225          230          235          240
Pro Asp Arg Asp Glu Arg Leu Lys Lys Glu Lys Gln Glu Arg Glu Glu
      245          250          255
Arg Glu Lys Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Lys Arg
      260          265          270
Arg Arg Glu Glu Glu Arg Glu Lys Glu Arg Ala Arg Asp Arg Glu
      275          280          285
Arg Arg Lys Arg Ser Arg Ser Arg Ser Arg His Ser Ser Arg Thr Ser
      290          295          300
Asp Arg Arg Cys Ser Arg Ser Arg Asp His Lys Arg Ser Arg Ser Arg
      305          310          315          320
Glu Arg Arg Arg Ser Arg Ser Arg Asp Arg Arg Arg Ser Arg Ser His
      325          330          335
Asp Arg Ser Glu Arg Lys His Arg Ser Arg Ser Arg Asp Arg Arg Arg
      340          345          350
Ser Lys Ser Arg Asp Arg Lys Ser Tyr Lys His Arg Ser Lys Ser Arg
      355          360          365
Asp Arg Glu Gln Asp Arg Lys Ser Lys Glu Lys Glu Lys Arg Gly Ser
      370          375          380
Asp Asp Lys Lys Ser Ser Val Lys Ser Gly Ser Arg Glu Lys Gln Ser
      385          390          395          400
Glu Asp Thr Asn Thr Glu Ser Lys Glu Ser Asp Thr Lys Asn Glu Val
      405          410          415
Asn Gly Thr Ser Glu Asp Ile Lys Ser Glu Val Gln Arg Lys Tyr Ala

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          420          425          430
Gln Met Lys Met Glu Leu Ser Arg Val Arg Arg His Thr Lys Ala Ser
          435          440          445
Ser Glu Gly Lys Asp Ser Val Val Leu Gln Asn Ile Leu Arg Tyr Ile
          450          455          460
Val Leu Ser Gln Leu Phe Cys Ser Arg Leu Val Pro Pro Leu Val Cys
465          470          475          480
Leu Phe Gly Asn Tyr Arg Pro His Leu
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<210> 5189
 <211> 323
 <212> DNA
 <213> Homo sapiens

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<400> 5189
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120
aatccaaaaa taacaaaatg tttagcaatt caggtaatgt caagcagtat tcaaacacat
180
gaagttaatc attccttaat tcctgtttat ttatatattca tttttgcttt ctttttactc
240
catgtgttat tcctacagaa gtcacaagtt aaatgttttt ggggaacttt gggggggggg
300
gacaaacatc catgtgctgc taa
323

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<210> 5190
 <211> 100
 <212> PRT
 <213> Homo sapiens

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<400> 5190
Met Ser His Cys Thr Trp Pro Gly Glu Ile Val Phe Ile Thr Tyr Asp
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Lys Cys Leu Ser Asn Ser Trp Leu Glu Ser Gly Leu Thr Ile Asn Asn
          20          25          30
Trp Asn Pro Lys Ile Thr Lys Cys Leu Ala Ile Gln Val Met Ser Ser
          35          40          45
Ser Ile Gln Thr His Glu Val Asn His Ser Leu Ile Pro Val Tyr Leu
          50          55          60
Tyr Phe Ile Phe Ala Phe Phe Leu Leu His Val Leu Phe Leu Gln Lys
65          70          75          80
Ser Gln Val Lys Cys Phe Trp Gly Thr Leu Gly Gly Gly Asp Lys His
          85          90          95
Pro Cys Ala Ala
          100

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<210> 5191
 <211> 1632
 <212> DNA
 <213> Homo sapiens

<400> 5191
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120
tccttctgac agcagataac atgtcgctcg cggcgtcagc aagaggcgca tgcgccttgc
180
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480
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1140
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 1620
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 1632

<210> 5192
 <211> 377
 <212> PRT
 <213> Homo sapiens

<400> 5192
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 Lys Val Trp Glu Leu Ala Arg Leu Val Trp Gln Ser Ser Ser Val Val
 35 40 45
 Phe His Thr Gly Ala Gly Ile Ser Thr Ala Ser Gly Ile Pro Asp Phe
 50 55 60
 Arg Gly Pro His Gly Val Trp Thr Met Glu Glu Arg Gly Leu Ala Pro
 65 70 75 80
 Lys Phe Asp Thr Thr Phe Glu Ser Ala Arg Pro Thr Gln Thr His Met
 85 90 95
 Ala Leu Val Gln Leu Glu Arg Val Gly Leu Leu Arg Phe Leu Val Ser
 100 105 110
 Gln Asn Val Asp Gly Leu His Val Arg Ser Gly Phe Pro Arg Asp Lys
 115 120 125
 Leu Ala Glu Leu His Gly Asn Met Phe Val Glu Glu Cys Ala Lys Cys
 130 135 140
 Lys Thr Gln Tyr Val Arg Asp Thr Val Val Gly Thr Met Gly Leu Lys
 145 150 155 160
 Ala Thr Gly Arg Leu Cys Thr Val Ala Lys Ala Arg Gly Leu Arg Ala
 165 170 175
 Cys Arg Gly Gly Cys Glu Ala Pro Glu Asp Ser Pro Gln Leu Pro His
 180 185 190
 Cys Arg Gly Glu Leu Arg Asp Thr Ile Leu Asp Trp Glu Asp Ser Leu
 195 200 205
 Pro Asp Arg Asp Leu Ala Leu Ala Asp Glu Ala Ser Arg Asn Ala Asp
 210 215 220
 Leu Ser Ile Thr Leu Gly Thr Ser Leu Gln Ile Arg Pro Ser Gly Asn
 225 230 235 240
 Leu Pro Leu Ala Thr Lys Arg Arg Gly Gly Arg Leu Val Ile Val Asn
 245 250 255
 Leu Gln Pro Thr Lys His Asp Arg His Ala Asp Leu Arg Ile His Gly
 260 265 270
 Tyr Val Asp Glu Val Met Thr Arg Leu Met Lys His Leu Gly Leu Glu
 275 280 285
 Ile Pro Ala Trp Asp Gly Pro Arg Val Leu Glu Arg Ala Leu Pro Pro
 290 295 300
 Leu Pro Arg Pro Pro Thr Pro Lys Leu Glu Pro Lys Glu Glu Ser Pro
 305 310 315 320
 Thr Arg Ile Asn Gly Ser Ile Pro Ala Gly Pro Lys Gln Glu Pro Cys
 325 330 335
 Ala Gln His Asn Gly Ser Glu Pro Ala Ser Pro Lys Arg Glu Arg Pro

340 345 350
 Thr Ser Pro Ala Pro His Arg Pro Pro Lys Arg Gly Pro Leu Val Arg
 355 360 365
 Phe Arg Glu Glu Ala Thr Pro Gln Arg
 370 375

<210> 5193
 <211> 554
 <212> DNA
 <213> Homo sapiens

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 240
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 360
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 420
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 540
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 554

<210> 5194
 <211> 94
 <212> PRT
 <213> Homo sapiens

<400> 5194
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 20 25 30
 Gly Gly Leu Arg Glu Val Cys Leu Cys Gln Ala Cys Ala Ala Ser Gly
 35 40 45
 Gly Gly Ala Cys Pro Ala Ser Ser Ser Leu Val Ser Pro Val Pro Arg
 50 55 60
 Ala Asn Thr Phe Ser Ala Arg Ser Gly Thr Arg Leu Glu Gly Pro Ala
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 Leu Pro Arg Pro Arg Leu Gln Pro Asp Ala Ala Ser Thr Arg
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<210> 5195
 <211> 964

<212> DNA

<213> Homo sapiens

<400> 5195

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<210> 5196

<211> 267

<212> PRT

<213> Homo sapiens

<400> 5196

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20           25           30
Thr Ile Ser Gln Leu Tyr Leu Ser Leu Gly Thr Glu Arg Ala Tyr Lys
35           40           45
Ser Ala Leu Asp Tyr Thr Lys Arg Ser Leu Gly Ile Phe Ile Asp Leu
50           55           60
Gln Lys Lys Glu Lys Glu Ala His Ala Trp Leu Gln Ala Gly Lys Ile

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65          70          75          80
Tyr Tyr Ile Leu Arg Gln Ser Glu Leu Val Asp Leu Tyr Ile Gln Val
      85          90          95
Ala Gln Asn Val Ala Leu Tyr Thr Gly Asp Pro Asn Leu Gly Leu Glu
      100         105         110
Leu Phe Glu Ala Ala Gly Asp Ile Phe Phe Asp Gly Ala Trp Glu Arg
      115         120         125
Glu Lys Ala Val Ser Phe Tyr Arg Asp Arg Ala Leu Pro Leu Ala Val
      130         135         140
Thr Thr Gly Asn Arg Lys Ala Glu Leu Arg Leu Cys Asn Lys Leu Val
      145         150         155         160
Ala Leu Leu Ala Thr Leu Glu Glu Pro Gln Glu Gly Leu Glu Phe Ala
      165         170         175
His Met Ala Leu Ala Leu Ser Ile Thr Leu Gly Asp Arg Leu Asn Glu
      180         185         190
Arg Val Ala Tyr His Arg Leu Ala Ala Leu Gln His Arg Leu Gly His
      195         200         205
Gly Glu Leu Ala Glu His Phe Tyr Leu Lys Ala Leu Ser Leu Cys Asn
      210         215         220
Ser Pro Leu Glu Phe Asp Glu Glu Thr Leu Tyr Tyr Val Lys Val Tyr
      225         230         235         240
Leu Val Leu Gly Asp Ile Ile Phe Tyr Asp Leu Lys Asp Pro Phe Asp
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Ala Ala Gly Tyr Tyr Gln Leu Ala Leu Ala Ala
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<210> 5197
 <211> 1045
 <212> DNA
 <213> Homo sapiens

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 480
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 600
 ttcattcagt cagagatgtc cgaggcgggtg gagcgagccc gaaagcgccg ggaagaagag
 660

gagcgccgag cccgggagga gaggtggcc gcctgtgctg ccaaactcaa gcagctggac
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 900
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 1045

<210> 5198

<211> 283

<212> PRT

<213> Homo sapiens

<400> 5198

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			20					25				30			
Glu	Glu	Glu	Glu	Glu	Val	Val	Lys	Asp	Gly	Arg	Pro	Lys	Trp	Asn	Ser
			35				40					45			
Trp	Asp	Pro	Arg	Arg	Gln	Arg	Gln	Leu	Ser	Met	Ser	Ser	Ala	Asp	Ser
	50				55			60							
Ala	Asp	Ala	Lys	Arg	Thr	Arg	Glu	Glu	Gly	Lys	Asp	Trp	Ala	Glu	Ala
65				70				75					80		
Val	Gly	Ala	Ser	Arg	Val	Val	Arg	Lys	Ala	Pro	Asp	Pro	Gln	Pro	Pro
			85					90					95		
Pro	Arg	Lys	Leu	His	Gly	Trp	Ala	Pro	Gly	Pro	Asp	Tyr	Gln	Lys	Ser
			100					105					110		
Ser	Met	Gly	Ser	Met	Phe	Arg	Gln	Gln	Ser	Ile	Glu	Asp	Lys	Glu	Asp
		115					120					125			
Lys	Pro	Pro	Pro	Arg	Gln	Lys	Phe	Ile	Gln	Ser	Glu	Met	Ser	Glu	Ala
		130				135					140				
Val	Glu	Arg	Ala	Arg	Lys	Arg	Arg	Glu	Glu	Glu	Arg	Arg	Ala	Arg	
145				150				155					160		
Glu	Glu	Arg	Leu	Ala	Ala	Cys	Ala	Ala	Lys	Leu	Lys	Gln	Leu	Asp	Gln
			165					170					175		
Lys	Cys	Lys	Gln	Ala	Arg	Lys	Ala	Gly	Glu	Ala	Arg	Lys	Gln	Ala	Glu
			180					185					190		
Lys	Glu	Val	Pro	Trp	Ser	Pro	Ser	Ala	Glu	Lys	Ala	Ser	Pro	Gln	Glu
		195				200						205			
Asn	Gly	Pro	Ala	Val	His	Lys	Gly	Ser	Pro	Glu	Phe	Pro	Ala	Gln	Glu
		210				215					220				
Thr	Pro	Thr	Thr	Phe	Pro	Glu	Glu	Ala	Pro	Thr	Val	Ser	Pro	Ala	Val
225				230				235					240		
Ala	Gln	Ser	Asn	Ser	Ser	Glu	Glu	Glu	Ala	Arg	Glu	Ala	Gly	Ser	Pro
			245					250					255		
Ala	Gln	Glu	Phe	Lys	Tyr	Gln	Lys	Ser	Leu	Pro	Pro	Arg	Phe	Gln	Arg

260 265
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<210> 5199
<211> 1332
<212> DNA
<213> Homo sapiens
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120
cagccgctga ggtgactttc aacggcagac cgtctctga gcgccccagg tagaatttca
180
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240
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300
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420
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480
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540
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1080
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1332

<210> 5200
<211> 358
<212> PRT
<213> Homo sapiens

<400> 5200
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35 40 45
Gln Gly Ala Asp Asp Val Thr Ser Val Leu Phe Ser Pro Ser Cys Pro
50 55 60
Thr Lys Leu Tyr Ala Ser His Gly Glu Thr Ile Ser Val Leu Asp Val
65 70 75 80
Arg Ser Leu Lys Asp Ser Leu Asp His Phe His Val Asn Glu Glu Glu
85 90 95
Ile Asn Cys Leu Ser Leu Asn Gln Thr Glu Asn Leu Leu Ala Ser Ala
100 105 110
Asp Asp Ser Gly Ala Ile Lys Ile Leu Asp Leu Glu Asn Lys Lys Val
115 120 125
Ile Arg Ser Leu Lys Arg His Ser Asn Ile Cys Ser Ser Val Ala Phe
130 135 140
Arg Pro Gln Arg Pro Gln Ser Leu Val Ser Cys Gly Leu Asp Met Gln
145 150 155 160
Val Met Leu Trp Ser Leu Gln Lys Ala Arg Pro Leu Trp Ile Thr Asn
165 170 175
Leu Gln Glu Asp Glu Thr Glu Glu Met Glu Gly Pro Gln Ser Pro Gly
180 185 190
Gln Leu Leu Asn Pro Ala Leu Ala His Ser Ile Ser Val Ala Ser Cys
195 200 205
Gly Asn Ile Phe Ser Cys Gly Ala Glu Asp Gly Lys Val Arg Ile Phe
210 215 220
Arg Val Met Gly Val Lys Cys Glu Gln Glu Leu Gly Phe Lys Gly His
225 230 235 240
Thr Ser Gly Val Ser Gln Val Cys Phe Leu Pro Glu Ser Tyr Leu Leu
245 250 255
Leu Thr Gly Gly Asn Asp Gly Lys Ile Thr Leu Trp Asp Ala Asn Ser
260 265 270
Glu Val Glu Lys Lys Gln Lys Ser Pro Thr Lys Arg Thr His Arg Lys
275 280 285
Lys Pro Lys Arg Gly Thr Cys Thr Lys Gln Gly Gly Asn Thr Asn Ala
290 295 300
Ser Val Thr Asp Glu Glu Glu His Gly Asn Ile Leu Pro Lys Leu Asn
305 310 315 320
Ile Glu His Gly Glu Lys Val Asn Trp Leu Leu Gly Thr Lys Ile Lys
325 330 335
Gly His Gln Asn Ile Leu Val Ala Asp Gln Thr Ser Cys Ile Ser Val
340 345 350
Tyr Pro Leu Asn Glu Phe

355

<210> 5201
<211> 6104
<212> DNA
<213> Homo sapiens

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120
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<210> 5202

<211> 108

<212> PRT

<213> Homo sapiens

<400> 5202

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Ser Gln Gly Ser Leu Glu Arg Gly Leu Ala Gly Leu Gly Gly His Arg
      35           40           45
Pro His Ser Gly Leu Pro Ala Gln Gly Arg Arg Pro Glu Pro Val Trp
      50           55           60
Pro Cys Ser Pro Gly Gln Ser Trp Ala Cys Arg Val Phe Leu Pro Gly
65           70           75           80
Arg Cys Arg Cys Trp Pro Ser Ala Gly Gly Arg Arg Trp Glu Ser Trp
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<210> 5203

<211> 1863

<212> DNA

<213> Homo sapiens

<400> 5203

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<211> 249

<212> PRT

<213> Homo sapiens

<400> 5204

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		20						25					30		
Glu	Leu	Pro	His	Pro	Lys	Ser	Met	Leu	Gln	Ala	Thr	Ala	Glu	Ala	Asn
		35					40					45			
Asn	Leu	Ala	Ala	Val	Ala	Gly	Ala	Arg	Asp	Thr	Tyr	Cys	Lys	Ser	Met
	50					55				60					
Glu	Gln	Val	Cys	Gly	Gly	Asp	Lys	Pro	Tyr	Ile	Ala	Pro	Ser	Asp	Leu
65				70						75				80	
Glu	Arg	Lys	His	Leu	Asp	Leu	Lys	Glu	Val	Ala	Ile	Lys	Gln	Phe	Arg
			85					90					95		
Ser	Val	Lys	Lys	Met	Gly	Gly	Asp	Glu	Phe	Cys	Arg	Arg	Tyr	Gln	Asp

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<210> 5206

<211> 248

<212> PRT

<213> Homo sapiens

<400> 5206

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		20						25					30		
Asp	Arg	Arg	Lys	Leu	Arg	Ala	Asp	Val	Thr	Thr	Ala	Phe	Pro	Thr	Leu
	35						40				45				
Gly	Thr	Asp	Gln	Val	Ser	Glu	Leu	Val	Pro	Gly	Lys	Glu	Glu	Leu	Asn

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65              70              75              80
Ser Gly Gly Asn Pro Ile Leu Phe Glu Leu Glu Lys Asn Leu Tyr Pro
      85              90              95
Thr Val Tyr Thr Leu Trp Ser Tyr Pro Asp Leu Leu Pro Thr Phe Thr
      100             105             110
Thr Trp Pro Leu Val Leu Glu Lys Leu Val Gly Gly Ala Asp Leu Met
      115             120             125
Leu Pro Gly Leu Val Met Pro Pro Ala Gly Leu Pro Gln Val Gln Lys
      130             135             140
Gly Asp Leu Cys Ala Ile Ser Leu Val Gly Asn Arg Ala Pro Val Ala
145             150             155             160
Ile Gly Val Ala Ala Met Ser Thr Ala Glu Met Leu Thr Ser Gly Leu
      165             170             175
Lys Gly Arg Gly Phe Ser Val Leu His Thr Tyr Gln Asp His Leu Trp
      180             185             190
Arg Ser Gly Asn Lys Ser Ser Pro Pro Ser Ile Ala Pro Leu Ala Leu
      195             200             205
Asp Ser Ala Asp Leu Ser Glu Glu Lys Gly Ser Val Gln Met Asp Ser
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<210> 5207

<211> 594

<212> DNA

<213> Homo sapiens

<400> 5207

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<210> 5208

<211> 136
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Asn Gly His Val His Asp Leu Gln Ile Leu Asp Phe Pro Pro Ile Ser
 50 55 60
 Ala Phe Pro Val Asn Thr Leu Gln Glu Trp Ala Asp Thr Cys Cys Arg
 65 70 75 80
 Gly Leu Arg Ser Val His Ala Tyr Ile Leu Val Tyr Asp Ile Cys Cys
 85 90 95
 Phe Asp Ser Phe Glu Tyr Val Lys Thr Ile Arg Gln Gln Ile Leu Glu
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 <211> 85
 <212> PRT
 <213> Homo sapiens

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 Ala Leu Leu Ile Leu Tyr Ala Leu Leu Ser Arg Leu Thr Gly Ser Arg
 35 40 45
 Ala Ser Gly Ala Gln Leu Glu Ala Lys Val Arg Gly Leu Glu Arg Gln
 50 55 60
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<210> 5211
 <211> 602
 <212> DNA
 <213> Homo sapiens

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35 40 45
Ser Lys Lys Ile Glu Glu Leu Met Lys Ile Gly Ser Asp Val Glu Leu
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Leu Leu Arg Thr Ser Val Ile Gln Gly Ile His Thr Asp His Asn Thr
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Leu Lys Leu Val Pro Arg Lys Asp Leu Leu Val Glu Asn Val Pro Tyr
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Cys Asp Ala Pro Thr Gln Lys Gln
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<210> 5213
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<212> DNA
<213> Homo sapiens

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<211> 1364

<212> PRT

<213> Homo sapiens

<400> 5214

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Glu	Lys	Thr	Lys	Leu	Ile	Ser	Cys	Leu	Gly	Ala	Phe	Arg	Gln	Phe	Trp
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Gly	Gly	Leu	Ser	Gln	Glu	Ser	His	Glu	Gln	Cys	Ile	Gln	Trp	Ile	Val
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Lys	Phe	Ile	His	Gly	Gln	His	Ser	Pro	Lys	Arg	Ile	Ser	Phe	Leu	Tyr

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Gln Leu Trp Ala Leu Thr Phe Lys Leu Val Arg Lys Ile Ile Gly Gly
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Val Asp Tyr Lys Gly Val Arg Asp Leu Leu Lys Val Ile Leu Glu Lys
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Ile Leu Thr Ile Pro Asn Thr Val Ser Ser Ala Val Val Gln Gln Leu
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Glu Gly Lys Leu Pro His Trp Leu Glu Gly Asn Leu Val Ser Asp Phe
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Val Asp Thr Phe Arg Pro Thr Ala Arg Ile Asn Ser Ile Cys Gly Arg
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Trp Lys Leu Asp Pro Ala Thr Leu Arg Phe Pro Leu Lys Gly Leu Leu
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Leu Asn Lys Gln His Lys Gln Arg Cys Pro Val Leu Glu Asp Gln Leu
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Phe Asp Asp Gly Gly Thr Ser Gln Leu Leu Trp Gln His Leu Ser Ser
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Pro Gln Ser Thr His Ala Phe Ala Met Thr Cys Ile Trp Ile His Leu
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His Ser Leu Arg Leu His His Glu Phe Leu Gln Gln Ser Leu Arg His
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Lys Ser Leu Gln Met Asn Asp Tyr Lys Ile Ala Leu Leu Cys Asn Ala
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Tyr Ser Thr Asn Ser Glu Cys Val Thr Leu Pro Met Gly Ala Leu Val
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Glu Thr Ile Tyr Gly Asn Gly Ile Met Arg Leu Pro Leu Pro Gly Thr

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Thr	Arg	Val	Ile	Lys	Leu	Ala	His	Ala	Lys	Ser	Ser	Val	Ala	Leu	Ala
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Leu	Thr	Leu	Ala	Arg	Ala	Thr	His	Val	Thr	Asp	Phe	Phe	Thr	Gly	Ser
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Ser	Phe	Thr	Pro	His	Asn	Trp	Ala	Ser	His	Thr	Leu	Ser	Cys	Phe	Pro
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Ser	Pro	Pro	Leu	Phe	Leu	Cys	Leu	Leu	Trp	Lys	Met	Leu	Leu	Glu	Thr
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Val	Cys	Tyr	Phe	Ile	Ile	Gln	Leu	Leu	Leu	Leu	Lys	Pro	Asn	Asp	Phe
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 <212> DNA
 <213> Homo sapiens

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<211> 541

<212> PRT

<213> Homo sapiens

<400> 5218

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Ser	Thr	Leu	Arg	Cys	Cys	Ser	Gly	Asn	Ser	Ser	Asp	Trp	Leu	Gly	Gly
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Ser	Pro	Gly	Ala	Ala	Pro	Gly	Thr	Leu	Cys	Cys	Phe	Leu	Trp	Pro	Arg
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Val	Gly	Thr	Gly	Leu	Cys	Pro	Gly	Leu	Ser	Leu	Pro	Gln	Pro	His	Leu
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Pro	His	Cys	Gln	Pro	Gln	Ser	Leu	Pro	Ala	Xaa	Ala	Arg	Val	Leu	Ser
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Ala Ser Leu Glu Glu Leu Gln	Ser Val His Ser Glu Arg His Val Leu	
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Gly Val Gly Val Asp Thr Asp	Thr Ile Trp Asn Glu Leu His Ser Ser	
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Asn Ala Ala Arg Trp Ala Ala	Gly Ser Val Thr Asp Leu Ala Phe Lys	
225	230	235
Val Ala Ser Arg Glu Leu Lys	Asn Gly Phe Ala Val Val Arg Pro Pro	
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260	265	270
Ser Val Ala Ile Ala Cys Arg	Gln Leu Gln Gln Ser Lys Ala Ser	
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Lys Ile Leu Ile Val Asp Trp	Asp Val His His Gly Asn Ala Thr Gln	
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Gln Thr Phe Tyr Gln Asp Pro	Ser Val Leu Tyr Ile Ser Leu His Arg	
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His Asp Asp Gly Asn Phe Phe	Pro Gly Ser Gly Ala Val Asp Glu Val	
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Gly Ala Gly Ser Gly Glu Gly	Phe Asn Val Asn Val Ala Trp Ala Gly	
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Gly Leu Asp Pro Pro Met Gly	Asp Pro Glu Tyr Leu Ala Ala Phe Arg	
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Ile Val Val Met Pro Ile Ala	Arg Glu Phe Ser Pro Asp Leu Val Leu	
370	375	380
Val Ser Ala Gly Phe Asp Ala	Ala Glu Gly His Pro Ala Pro Leu Gly	
385	390	395
Gly Tyr His Val Ser Ala Lys	Cys Phe Gly Tyr Met Thr Gln Gln Leu	
405	410	415
Met Asn Leu Ala Gly Gly Ala	Val Val Leu Ala Leu Glu Gly Gly His	
420	425	430
Asp Leu Thr Ala Ile Cys Asp	Ala Ser Glu Ala Cys Val Ala Ala Leu	
435	440	445
Leu Gly Asn Arg Val Asp Pro	Leu Ser Glu Glu Gly Trp Lys Gln Lys	
450	455	460
Pro Asn Leu Asn Ala Ile Arg	Ser Leu Glu Ala Val Ile Arg Val His	
465	470	475
Ser Lys Tyr Trp Gly Cys Met	Gln Arg Leu Ala Ser Cys Pro Asp Ser	
485	490	495
Trp Val Pro Arg Val Pro Gly	Ala Asp Lys Glu Glu Val Glu Ala Val	
500	505	510
Thr Ala Leu Ala Ser Leu Ser	Val Gly Ile Leu Ala Glu Asp Arg Pro	
515	520	525
Ser Glu Gln Leu Val Glu Glu	Glu Glu Pro Met Asn Leu	
530	535	540

<210> 5219
<211> 1212
<212> DNA
<213> Homo sapiens

<400> 5219
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60
ctcggccggg cccgagtcgg actccctcaa gggtgacggg agctctgccc tttaaccgga
120
aacgtctccc tgetcacccc acccccggcg agacgcagtg ctgagcacac agctaccgga
180
caaagagtga cgccccggagc tggagttatg gcggctacgg agccgatctt ggcgggccact
240
gggagtcctc cggcggtgcc accggagaaa ctggaaggag ccggttcgag ctcagcccct
300
gagcgtaact gtgtgggctc ctcgctgcca gaggcctcac cgcctgcccc tgagccttcc
360
agtcccaacg ccggcggtccc tgaagccatc cctacgcccc gagctgcggc ctccggggcc
420
ctggagctgc ctctcgggcc cgcaccctg agcgtagcgc ctcaggccga agctgaagcg
480
cgctccacac cagggcccg cggctctaga ctcggtcccc agacgttccg ccagcggttc
540
cggcagttcc gctaccagga tgcggcgggt ccccgggagg ctttcgggca gctgcgggag
600
ctgtcccgcc agtggtctgg gcctgacatc cgcaccaagg agcagatcgt ggagatgctg
660
gtgcaagagc agctgctcgc caccctgccc gagggcgctc gggcccgggc gatccggcgc
720
cgcacggatg tgcgcatcac tggctgagcg gtggagctgc gggcgggccg ggcggggcgc
780
tctgtgcgga ctggggccat gatcggggcc gggggcctga gcctgggacc ccaccccgtg
840
ttaatgaaaa atgagttttg gcagcgctg tggctgtgtg tgtctctttc attcgtttct
900
attgggttta ttttaccagg cctgtttcct accgccttcc tggtctgttg cgaaacgaag
960
ttgggagtc gtaacaataa ggccttcggt ggctatagtg ggatctttag atgttgactg
1020
aacctagggt atccctctac cacacatggg aagtttttca cctgggctcc caaggaccca
1080
cttgggtttc ttacacgcaa aatagctggc tctattaaat gctcacttaa ctggctacct
1140
ctataccaat atgggcacca acttgacact gccctttggg tacaggcttc ccacaatgtc
1200
cnagttactg gg
1212

<210> 5220
<211> 179
<212> PRT
<213> Homo sapiens

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<400> 5220
Met Ala Ala Thr Glu Pro Ile Leu Ala Ala Thr Gly Ser Pro Ala Ala
 1           5           10           15
Val Pro Pro Glu Lys Leu Glu Gly Ala Gly Ser Ser Ser Ala Pro Glu
      20           25           30
Arg Asn Cys Val Gly Ser Ser Leu Pro Glu Ala Ser Pro Pro Ala Pro
      35           40           45
Glu Pro Ser Ser Pro Asn Ala Ala Val Pro Glu Ala Ile Pro Thr Pro
      50           55           60
Arg Ala Ala Ala Ser Ala Ala Leu Glu Leu Pro Leu Gly Pro Ala Pro
      65           70           75           80
Val Ser Val Ala Pro Gln Ala Glu Ala Glu Ala Arg Ser Thr Pro Gly
      85           90           95
Pro Ala Gly Ser Arg Leu Gly Pro Glu Thr Phe Arg Gln Arg Phe Arg
      100          105          110
Gln Phe Arg Tyr Gln Asp Ala Ala Gly Pro Arg Glu Ala Phe Arg Gln
      115          120          125
Leu Arg Glu Leu Ser Arg Gln Trp Leu Arg Pro Asp Ile Arg Thr Lys
      130          135          140
Glu Gln Ile Val Glu Met Leu Val Gln Glu Gln Leu Leu Ala Ile Leu
      145          150          155          160
Pro Glu Ala Ala Arg Ala Arg Arg Ile Arg Arg Arg Thr Asp Val Arg
      165          170          175
Ile Thr Gly

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<210> 5221
<211> 497
<212> DNA
<213> Homo sapiens

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<400> 5221
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gcttttggag acacgttca catacactac acgggaagct tggtagatgg acgtattatt
 120
gacacctccc tgaccagaga ccctctggtt atagaacttg gccaaaagca ggtgattcca
 180
ggtctggagc agagtcttct cgacatgtgt gtgggagaga agcgaagggc aatcattcct
 240
tctcacttgg cctatggaaa acggggattt ccaccatctg tcccagggaac taaagacaac
 300
ctgatgagggc cacctggcat gacctccagc agccagtaac ttgttaggga agagacctgc
 360
ttgggccaca tgggtctgct gcctgtgcca ccacctttcc cagaacactg gacttctttc
 420
ctgccctttt ctacaactct acgtgtgtgc agctgtacag ccacccccca ccccttcctt
 480
tcagccacca tctgtcc
 497

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<210> 5222
<211> 112
<212> PRT

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<213> Homo sapiens

<400> 5222

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Xaa Arg Thr Leu Gln Val Glu Thr Leu Val Glu Pro Pro Glu Pro Cys
 1           5           10           15
Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr Thr Gly
 20           25           30
Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg Asp Pro
 35           40           45
Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu Glu Gln
 50           55           60
Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile Ile Pro
 65           70           75           80
Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val Pro Gly
 85           90           95
Thr Lys Asp Asn Leu Met Arg Pro Pro Gly Met Thr Ser Ser Ser Gln
100           105           110

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<210> 5223

<211> 637

<212> DNA

<213> Homo sapiens

<400> 5223

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ngcaccattt tcgacaatga agccaaagac gtggagagag aagtttgctt tattgatatt
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gcctgcatg aaattccaga gcgctactac aaagaatctg aggatcctaa gcacttcaag
120
tcagagaaga caggacgggg acagttgagg gaaggctgga gagatagtca tcagcctatc
180
atgtgctcct acaagctggt gactgtgaag tttgaggtct gggggcttca gaccagagtg
240
gaacaatttg tacacaaggt ggtccgagac attctgctga ttggacatag acaggctttt
300
gcattgggtt atgagtggta tgatatgaca atggatgatg ttccgggaata cgagaaaaac
360
atgcatgaac aaaccaacat aaaagtttgc aatcagcatt cctcccctgt ggatgacata
420
gagagtcatg cccaacaag tacatgacaa tggatgaagt ccgagaattt gaacgagcca
480
ctcaggaagc caccaacaag aaaatcggca ttttcccacc tgcaatttct atctccagca
540
tccccctgct gccttcttcc gtccgcagtg cgccttctag tgctccatcc acccctctct
600
ccacagacgc acccgaattt ctgtccgttc ccaaaga
637

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<210> 5224

<211> 148

<212> PRT

<213> Homo sapiens

<400> 5224

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Xaa Thr Ile Phe Asp Asn Glu Ala Lys Asp Val Glu Arg Glu Val Cys

```

```

      1           5           10           15
Phe Ile Asp Ile Ala Cys Asp Glu Ile Pro Glu Arg Tyr Tyr Lys Glu
      20           25           30
Ser Glu Asp Pro Lys His Phe Lys Ser Glu Lys Thr Gly Arg Gly Gln
      35           40           45
Leu Arg Glu Gly Trp Arg Asp Ser His Gln Pro Ile Met Cys Ser Tyr
      50           55           60
Lys Leu Val Thr Val Lys Phe Glu Val Trp Gly Leu Gln Thr Arg Val
      65           70           75           80
Glu Gln Phe Val His Lys Val Val Arg Asp Ile Leu Leu Ile Gly His
      85           90           95
Arg Gln Ala Phe Ala Trp Val Asp Glu Trp Tyr Asp Met Thr Met Asp
      100          105          110
Asp Val Arg Glu Tyr Glu Lys Asn Met His Glu Gln Thr Asn Ile Lys
      115          120          125
Val Cys Asn Gln His Ser Ser Pro Val Asp Asp Ile Glu Ser His Ala
      130          135          140
Gln Thr Ser Thr
145

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<210> 5225

<211> 394

<212> DNA

<213> Homo sapiens

<400> 5225

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acgcgtgaag gggctgggggt gggcaatcag ggaggacttc ctggaggcgg cagctgaggc
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tggggcagag aaggaccacag ggcactggaa ggggaaggag aaacgtaagc agagtcttgg
120
caggcctggt cagacggaca tgcccaaggg aacagatagt accaggacag gggaccctgg
180
tctgaagggg cgatagcctg gccccagtg gaaacagccc ctcccaaccc tggcggcaga
240
caggaggagg cggcaggtat gtgagatgca aacctggggg actgcccac cccagtgga
300
tgtgaggaca cgggtgggttc aggaagtgga gtgacaaatg ggctgtgctg gacttgcttt
360
ccccacatga aggttaggaa ccaagagaac ggcc
394

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<210> 5226

<211> 113

<212> PRT

<213> Homo sapiens

<400> 5226

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Met Trp Gly Lys Gln Val Gln His Ser Pro Phe Val Thr Pro Leu Pro
      1           5           10           15
Glu Pro Thr Val Ser Ser His Pro Leu Gly Asp Gly Gln Ser Pro Arg
      20           25           30
Phe Ala Ser His Ile Pro Ala Asp Pro Pro Cys Leu Pro Pro Gly Leu
      35           40           45
Gly Gly Ala Val Ser Thr Gly Gly Gln Ala Ile Ala Pro Ser Asp Gln

```

50					55					60					
Gly	Pro	Leu	Ser	Trp	Tyr	Tyr	Leu	Phe	Pro	Trp	Ala	Cys	Pro	Ser	Asp
65					70					75					80
Gln	Ala	Cys	Gln	Asp	Ser	Ala	Tyr	Val	Ser	Pro	Ser	Pro	Ser	Ser	Ala
				85					90					95	
Leu	Gly	Pro	Ser	Leu	Pro	Gln	Pro	Gln	Leu	Pro	Pro	Pro	Gly	Ser	Pro
				100				105					110		
Pro															

<210> 5227

<211> 2366

<212> DNA

<213> Homo sapiens

<400> 5227

tcgcgaacag	gccaccacag	cacacgtgga	tgttcttttag	ctccttggcg	ccaccagatg
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120	ggatgacggt	catgccggca	ggcaccgtgt	agaaggccag	tgtggttaacc
180	acctgaactt	cacccggtca	gacctcatct	tcaccgtgga	cttcgaaatt
240	aggatcctcg	cagcttctac	gagcggggtg	tcgcagtcct	gtgcacagag
300	tagctgcccc	tttctgtaat	agtgaaggtt	ggtattttaac	atttattcat
360	tttggaaggt	ctgagcttgt	gaaaagaaa	tggttggtct	gagggtggag
420	ggaatctgac	ggttggggagt	ggtggaaaatt	ggaaggatac	caggaggtat
480	cttacggagc	tgccctcgtc	tactggagca	gaagaaatag	acctaatctt
540	attatggaga	atcctattgt	aaaatcactt	gctaaggctc	gtgagaggtc
600	aaactagaag	ctgtcagtga	caataacttg	gaattagtca	atgaaattct
660	actcctctaa	taaatgtgga	tgaaaatgtg	gcagaattgg	ttggtatact
720	cacttccagt	cactgttggg	ggcccatgat	attgtggcat	caaagtgtta
780	ccatcaagcc	cagaaatgaa	taattcttct	atcaataatc	agttattacc
840	attcgtattc	ttggtattca	caaaagagct	ggggaaccac	tgggtgtgac
900	gaaaataatg	atctggtaat	tgcccgaatc	ctccatgggg	gaatgataga
960	ctacttcagt	tgggagatat	aattaaagaa	gtcaatggcc	atgagggttg
1020	aaggaattac	agaattact	gaaaaatatt	agtggaagtg	tcaccctaaa
1080	agttatagag	ataccattac	tcctcaacag	gtattttgtg	agtgtcattt
1140					

ccatacaatg acaacctaat accttgcaaa gaagcaggat tgaagttttc caaaggagag
 1200
 attcttcaga ttgtaaatag agaagatcca aattggtggc aggctagcca tgtaaaagag
 1260
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 1320
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 1380
 aagatgatgt atctcacaac cagaaatgca gaatttgatc gtcattgaaat ccagatatat
 1440
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 1560
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 1680
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 1740
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 1800
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 1860
 cacaaggctg tgggtgatgc aggaatcact accaagcttc tgaccgactc tgacttgaag
 1920
 aaaacagtgg atgaaagtgc acggattcag agagcataca accactattt tgatttgatc
 1980
 atcataaatg ataacttaga caaagccttt gaaaaactgc aaactgccat agagaaactg
 2040
 agaattggaac cacagtgggt cccaatcagc tgggtttact gatgattcag taaggttaac
 2100
 aatgaaaatt aaactcttaa aaagtgactg caacaaataa accttctact gagaaaatac
 2160
 atcacagata gaagattatc tgctaagtcc aggcattttt atggtgtaga ttgaaataat
 2220
 agtacacttc tgaattttta tataaaatgt ggttggaagg tgtactaata tataatttat
 2280
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 2340
 tgaagcaaaa aaaaaaaaaa aaaaaa
 2366

<210> 5228

<211> 550

<212> PRT

<213> Homo sapiens

<400> 5228

Arg Leu Gly Val Val Glu Ile Gly Arg Ile Pro Gly Gly Ile Trp Glu
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 Asn Leu Thr Glu Leu Pro Ser Ser Thr Gly Ala Glu Glu Ile Asp Leu
 20 25 30
 Ile Phe Leu Lys Gly Ile Met Glu Asn Pro Ile Val Lys Ser Leu Ala

	35					40					45				
Lys	Ala	Arg	Glu	Arg	Leu	Glu	Asp	Ser	Lys	Leu	Glu	Ala	Val	Ser	Asp
50						55				60					
Asn	Asn	Leu	Glu	Leu	Val	Asn	Glu	Ile	Leu	Glu	Asp	Ile	Thr	Pro	Leu
65					70				75					80	
Ile	Asn	Val	Asp	Glu	Asn	Val	Ala	Glu	Leu	Val	Gly	Ile	Leu	Lys	Glu
				85				90						95	
Pro	His	Phe	Gln	Ser	Leu	Leu	Glu	Ala	His	Asp	Ile	Val	Ala	Ser	Lys
			100					105					110		
Cys	Tyr	Asp	Ser	Pro	Pro	Ser	Ser	Pro	Glu	Met	Asn	Asn	Ser	Ser	Ile
	115					120					125				
Asn	Asn	Gln	Leu	Leu	Pro	Val	Asp	Ala	Ile	Arg	Ile	Leu	Gly	Ile	His
130					135					140					
Lys	Arg	Ala	Gly	Glu	Pro	Leu	Gly	Val	Thr	Phe	Arg	Val	Glu	Asn	Asn
145					150					155					160
Asp	Leu	Val	Ile	Ala	Arg	Ile	Leu	His	Gly	Gly	Met	Ile	Asp	Arg	Gln
				165					170					175	
Gly	Leu	Leu	His	Val	Gly	Asp	Ile	Ile	Lys	Glu	Val	Asn	Gly	His	Glu
			180				185						190		
Val	Gly	Asn	Asn	Pro	Lys	Glu	Leu	Gln	Glu	Leu	Leu	Lys	Asn	Ile	Ser
	195					200						205			
Gly	Ser	Val	Thr	Leu	Lys	Ile	Leu	Pro	Ser	Tyr	Arg	Asp	Thr	Ile	Thr
210					215						220				
Pro	Gln	Gln	Val	Phe	Val	Lys	Cys	His	Phe	Asp	Tyr	Asn	Pro	Tyr	Asn
225					230				235						240
Asp	Asn	Leu	Ile	Pro	Cys	Lys	Glu	Ala	Gly	Leu	Lys	Phe	Ser	Lys	Gly
				245					250					255	
Glu	Ile	Leu	Gln	Ile	Val	Asn	Arg	Glu	Asp	Pro	Asn	Trp	Trp	Gln	Ala
			260					265					270		
Ser	His	Val	Lys	Glu	Gly	Gly	Ser	Ala	Gly	Leu	Ile	Pro	Ser	Gln	Phe
275						280					285				
Leu	Glu	Glu	Lys	Arg	Lys	Ala	Phe	Val	Arg	Arg	Asp	Trp	Asp	Asn	Ser
290					295						300				
Gly	Pro	Phe	Cys	Gly	Thr	Ile	Ser	Ser	Lys	Lys	Lys	Lys	Met	Met	
305					310					315				320	
Tyr	Leu	Thr	Thr	Arg	Asn	Ala	Glu	Phe	Asp	Arg	His	Glu	Ile	Gln	Ile
				325					330					335	
Tyr	Glu	Glu	Val	Ala	Lys	Met	Pro	Pro	Phe	Gln	Arg	Lys	Thr	Leu	Val
			340					345					350		
Leu	Ile	Gly	Ala	Gln	Gly	Val	Gly	Arg	Arg	Ser	Leu	Lys	Asn	Arg	Phe
		355					360					365			
Ile	Val	Leu	Asn	Pro	Thr	Arg	Phe	Gly	Thr	Thr	Val	Pro	Phe	Thr	Ser
370						375					380				
Arg	Lys	Pro	Arg	Glu	Asp	Glu	Lys	Asp	Gly	Gln	Ala	Tyr	Lys	Phe	Val
385					390					395					4

465		470		475		480									
Val	Val	Asp	Ala	Gly	Ile	Thr	Thr	Lys	Leu	Leu	Thr	Asp	Ser	Asp	Leu
			485						490					495	
Lys	Lys	Thr	Val	Asp	Glu	Ser	Ala	Arg	Ile	Gln	Arg	Ala	Tyr	Asn	His
			500					505					510		
Tyr	Phe	Asp	Leu	Ile	Ile	Ile	Asn	Asp	Asn	Leu	Asp	Lys	Ala	Phe	Glu
		515					520				525				
Lys	Leu	Gln	Thr	Ala	Ile	Glu	Lys	Leu	Arg	Met	Glu	Pro	Gln	Trp	Val
	530					535					540				
Pro	Ile	Ser	Trp	Val	Tyr										
545					550										

<210> 5229

<211> 1031

<212> DNA

<213> Homo sapiens

<400> 5229

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agcgccagcc cagtcaaaag agcttgaaac ctaccaagcc ggaggactgt gctgtgcctc
120
tctcgcccac attttcccca agcactctca ggaacctggc aacagtgtcc ccttgtggcc
180
aagcctggaa catcacatct gtacgttgca atctgtggat cagctacgag actgagagaa
240
aggaatgaaa ggatggaaga attacaagat caggcactgc tgtctgtctg ttccacggat
300
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360
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420
gaggtgatcg gggcaggagt aaagtggaca cctcagcaa gccattcgct gtgatctctg
480
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540
ccagcatgat ctagcaggcc aaatccta ataccattct ctgacaccag ctggtccctt
600
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660
aaaggaccgt gggaggcacc tgtgacactg cccttttctt gtgcagctgt ttttcttctt
720
cattcttttc actcctcggt actctttttt ttttactct cagccacac aaaactagga
780
actttgttat tctacttatt tttctgtact ctgtctgttt gcacacagat ggatatctga
840
gagccagcga actttcttta cctcctagta tcatttcattg aaaattagta gcacctgcac
900
aatggggcct tggagacagg aataaaagga aaaatctgga atggaatcac atgacgcaac
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1020
gagcatccct g
1031

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<210> 5230
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 5230
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 Val Cys Lys Gln Thr Glu Tyr Arg Lys Ile Ser Arg Ile Thr Lys Phe
 20 25 30
 Leu Val Leu Cys Gly Leu Arg Val Lys Lys Arg Val Thr Arg Ser
 35 40 45
 Glu Lys Asn Glu Glu Glu Lys Gln Leu His Arg Lys Arg Ala Val Ser
 50 55 60
 Gln Val Pro Pro Thr Val Leu Cys Arg Glu Pro Val Gly Glu Ala Lys
 65 70 75 80
 Trp Gly Glu Trp Gly Thr Ser Gly Gly Arg Pro Gln Gly Thr Ser Trp
 85 90 95
 Cys Gln Arg Met Val Asp
 100

<210> 5231
 <211> 845
 <212> DNA
 <213> Homo sapiens

<400> 5231
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 120
 cagtctggcc tgggcgcgc ggaacgctg tcttggtgc cgccaccga acagcctgtc
 180
 ctggtgcccc ggctccctgc cccgcgccca gtcattgacc tgcgcccctc actcctcccg
 240
 ctccatctgc tgctgctgct gctgctcagt gcggcggtgt gccgggctga ggctgggctc
 300
 gaaaccgaaa gtcccgctccg gaccctccaa gtggagacct tggaggagcc ccagaaacca
 360
 tgtgccgagc ccgtgcttt tggagacacg cttcacatac actacacggg aagcttggtg
 420
 gatggacgta ttattgacac ctccctgacc agagaccctc tggttataga acttggtccaa
 480
 aagcaggtga ttccaggtct ggagcagagt cttctcgaca tgtgtgtggg agagaagcga
 540
 agggcaatca ttccttctca cttggcctat ggaaaacggg gatttccacc atctgtccca
 600
 gcggatgcag tgggtgcagta tgacgtggag ctgattgcac taatccgagc caactactgg
 660
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 720
 ggcctcattg ggtatcacct atacagaaag gccaatagac ccaaagtctc caaaaagaag
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ctcaaggaag agaaacgaaa caagagcaaa aagaataat aaataataaa ttttaaaaaa
 840
 cttaa
 845

<210> 5232
 <211> 201
 <212> PRT
 <213> Homo sapiens

<400> 5232
 Met Thr Leu Arg Pro Ser Leu Leu Pro Leu His Leu Leu Leu Leu Leu
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 20 25 30
 Ser Pro Val Arg Thr Leu Gln Val Glu Thr Leu Val Glu Pro Pro Glu
 35 40 45
 Pro Cys Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr
 50 55 60
 Thr Gly Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg
 65 70 75 80
 Asp Pro Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu
 85 90 95
 Glu Gln Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile
 100 105 110
 Ile Pro Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val
 115 120 125
 Pro Ala Asp Ala Val Val Gln Tyr Asp Val Glu Leu Ile Ala Leu Ile
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 Arg Ala Asn Tyr Trp Leu Lys Leu Val Lys Gly Ile Leu Pro Leu Val
 145 150 155 160
 Gly Met Ala Met Val Pro Ala Leu Leu Gly Leu Ile Gly Tyr His Leu
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 Glu Lys Arg Asn Lys Ser Lys Lys Lys
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<210> 5233
 <211> 2801
 <212> DNA
 <213> Homo sapiens

<400> 5233
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420
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<210> 5234

<211> 57

<212> PRT

<213> Homo sapiens

<400> 5234

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			20				25					30			
Ile	Ile	Ser	Lys	Glu	Thr	Pro	Pro	Pro	Pro	Arg	Leu	Ile	Phe	Lys	Lys
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<210> 5235

<211> 3017

<212> DNA

<213> Homo sapiens

<400> 5235

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<210> 5236

<211> 178

<212> PRT

<213> Homo sapiens

<400> 5236

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Pro Pro Thr Trp Glu Ser Pro Gly Asp Asp Ala Ser Leu Glu His Glu			
35	40	45	
Ala Glu Met Asp Leu Gly Thr Pro Thr Tyr Asp Glu Asn Pro Met Lys			
50	55	60	
Ala Ser Lys Lys Pro Lys Thr Ala Glu Ala Asp Thr Ser Ser Glu Leu			
65	70	75	80
Ala Lys Lys Ser Lys Glu Val Phe Arg Lys Glu Met Ser Gln Phe Ile			
85	90	95	
Val Gln Cys Leu Asn Pro Tyr Arg Lys Pro Asp Cys Lys Val Gly Arg			
100	105	110	
Ile Thr Thr Thr Glu Asp Phe Lys His Leu Ala Arg Lys Leu Thr His			
115	120	125	
Gly Val Met Asn Lys Glu Leu Lys Tyr Cys Lys Asn Pro Glu Asp Leu			
130	135	140	
Glu Cys Asn Glu Asn Val Lys His Lys Thr Lys Glu Tyr Ile Lys Lys			
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Tyr Met Gln Lys Phe Gly Ala Val Tyr Lys Pro Lys Glu Asp Thr Glu			
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Leu Glu			

<210> 5237

<211> 1238

<212> DNA

<213> Homo sapiens

<400> 5237

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 1140
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<210> 5238

<211> 212

<212> PRT

<213> Homo sapiens

<400> 5238

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 Leu Leu Gly Ile Tyr Ile Ile His Arg Ala Val Arg Asn Pro Asp Asp
 35 40 45
 Leu Glu Ala Arg Ser His Met His Leu Ala Ser Ala Phe Ala Gly Ile
 50 55 60
 Gly Phe Gly Asn Ala Gly Val His Leu Cys His Gly Met Ser Tyr Pro
 65 70 75 80
 Ile Ser Gly Leu Val Lys Met Tyr Lys Ala Lys Asp Tyr Asn Val Asp
 85 90 95
 His Pro Leu Val Pro His Gly Leu Ser Val Val Leu Thr Ser Pro Ala
 100 105 110
 Val Phe Thr Phe Thr Ala Gln Met Phe Pro Glu Arg His Leu Glu Met
 115 120 125
 Ala Glu Ile Leu Gly Ala Asp Thr Arg Thr Ala Arg Ile Gln Asp Ala
 130 135 140
 Gly Leu Val Leu Ala Asp Thr Leu Arg Lys Phe Leu Phe Asp Leu Asp
 145 150 155 160
 Val Asp Asp Gly Leu Ala Ala Val Gly Tyr Ser Lys Ala Asp Ile Pro
 165 170 175
 Ala Leu Val Lys Gly Thr Leu Pro Gln Glu Arg Val Thr Lys Leu Ala
 180 185 190
 Pro Arg Pro Gln Ser Glu Glu Asp Leu Ala Ala Leu Phe Glu Ala Ser
 195 200 205
 Met Lys Leu Tyr
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<210> 5239
<211> 2061
<212> DNA
<213> Homo sapiens

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<210> 5240

<211> 226

<212> PRT

<213> Homo sapiens

<400> 5240

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			20					25					30		
Ser	Ala	Gly	Gly	Thr	Pro	Ser	Gly	Cys	Thr	Val	Ala	Gly	Gly	Leu	Gly
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Ala	Ser	Gly	Gly	Val	Gly	Ser	Thr	Gly	Thr	Gly	Ala	Ser	Pro	Pro	Thr
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Thr	Val	Ala	Ile	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
65				70					75					80	
Ser	Ser	Glu	Ser	Val	Ser	Leu	Gly	Gly	Ala	Trp	Gly	Gly	Pro	Gly	Gly
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Gly	Ser	Leu	Ser	Pro	Arg	Ser	Ala	Phe	Phe	Asn	Phe	Arg	Phe	Leu	Leu
			100					105					110		
Phe	Leu	Ile	Arg	Asp	Leu	Phe	Ser	Pro	Ser	Pro	Gly	Val	Gly	Arg	Gly
		115				120						125			
Leu	Arg	Ser	Thr	Pro	Lys	Pro	Ala	Pro	Ala	Pro	Gly	Pro	Asn	Phe	Arg
			130				135					140			
Phe	Phe	Arg	Ser	Phe	Phe	Arg	Gly	Gly	Trp	Glu	Arg	Ser	Pro	Trp	Glu
145					150					155				160	
Arg	Gly	Thr	Gly	Val	Arg	Ala	Ala	Gly	Gly	Arg	Glu	Val	Cys	Val	Arg
			165						170					175	
Asp	Val	Gly	Asp	Lys	Gly	Asp	Ala	Thr	Leu	Gly	Pro	Ser	Arg	Ser	Lys
			180				185						190		
Arg	Glu	Ser	Leu	Ser	Phe	Ile	Phe	Ser	Ser	Lys	Val	Ala	Leu	Ser	Gly

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 210 215 220
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<210> 5241
 <211> 461
 <212> DNA
 <213> Homo sapiens

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<210> 5242
 <211> 146
 <212> PRT
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 35 40 45
 Cys Thr Ala Pro Gly Ile Gly Thr Pro Cys Ser Gly Cys Ala Gly Thr
 50 55 60
 Ala Ala Pro Arg Glu Val Arg Gly Leu Leu Ser His Leu Pro Pro Ser
 65 70 75 80
 Val Val Ser Trp Arg Phe Gln Trp Phe Gly Ala Ser Leu Leu Thr Trp
 85 90 95
 Pro Ala Leu Ser Ser Ala Ser Arg Leu Trp Gly Pro Leu His Pro Gly
 100 105 110
 Gly Arg Arg Arg Arg Lys Lys Pro Pro Glu Val Ala Arg Asn Pro Val
 115 120 125
 Ala Gly Glu Val Gly Leu Ser Gln Ala Arg Pro Leu Cys Arg Glu Phe
 130 135 140
 Pro Arg

145

<210> 5243
 <211> 344
 <212> DNA
 <213> Homo sapiens

<400> 5243
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 tggctggacc ttacagacga gccatttggt cagaaggtaa ctgtggaccc tgacaactca
 120
 aattgcagtg aagaaagtgc taggttgtct ttgaagcttg gtgatgctgg aaaccccaga
 180
 agtcttgcta taagattcat ccttaccaat tacaacaagt tgtccatcca gagttgggtt
 240
 agtttgcgcc gagtcgagat catttccaac aattcaatcc aagcagtctt taacccaact
 300
 ggcgtatatg ctccctctgg ttactcttac cgctgccaac gcgt
 344

<210> 5244
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 5244
 Xaa Ile Pro Cys Ile Leu Phe Trp Ala Lys Arg Ile Met Ile Lys Phe
 1 5 10 15
 Lys Asn Gln Thr Trp Leu Asp Leu Thr Asp Glu Pro Phe Gly Gln Lys
 20 25 30
 Val Thr Val Asp Pro Asp Asn Ser Asn Cys Ser Glu Glu Ser Ala Arg
 35 40 45
 Leu Ser Leu Lys Leu Gly Asp Ala Gly Asn Pro Arg Ser Leu Ala Ile
 50 55 60
 Arg Phe Ile Leu Thr Asn Tyr Asn Lys Leu Ser Ile Gln Ser Trp Phe
 65 70 75 80
 Ser Leu Arg Arg Val Glu Ile Ile Ser Asn Asn Ser Ile Gln Ala Val
 85 90 95
 Phe Asn Pro Thr Gly Val Tyr Ala Pro Ser Gly Tyr Ser Tyr Arg Cys
 100 105 110
 Gln Arg

<210> 5245
 <211> 483
 <212> DNA
 <213> Homo sapiens

<400> 5245
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 ctccggcccg ctaagcccg gcggacaact atgctgaaag ccaagatcct ctcgtggggg
 120

ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact
 180
 gaatacagcc caacccaagg agtgagggtt gagtcctgct ggccggccct gatgaaggat
 240
 gctcatggag tggatgatcgt cttcaatgct gacatcccaa gccaccggaa ggaaatggag
 300
 atgtggtatt cctgctttgt ccaacagccg tccttacagg acacacagtg tatgctaatt
 360
 gcacaccaca aaccaggctc tggagatgat aaaggaagcc tgtctttgtc gccacccttg
 420
 aacaagctga agctggtgca ctcaaacctg gaagatgacc ctgaggagat ccggatggaa
 480
 ttc
 483

<210> 5246
 <211> 131
 <212> PRT
 <213> Homo sapiens

<400> 5246
 Met Leu Lys Ala Lys Ile Leu Phe Val Gly Pro Cys Glu Ser Gly Lys
 1 5 10 15
 Thr Val Leu Ala Asn Phe Leu Thr Glu Ser Ser Asp Ile Thr Glu Tyr
 20 25 30
 Ser Pro Thr Gln Gly Val Arg Phe Glu Ser Cys Trp Pro Ala Leu Met
 35 40 45
 Lys Asp Ala His Gly Val Val Ile Val Phe Asn Ala Asp Ile Pro Ser
 50 55 60
 His Arg Lys Glu Met Glu Met Trp Tyr Ser Cys Phe Val Gln Gln Pro
 65 70 75 80
 Ser Leu Gln Asp Thr Gln Cys Met Leu Ile Ala His His Lys Pro Gly
 85 90 95
 Ser Gly Asp Asp Lys Gly Ser Leu Ser Leu Ser Pro Pro Leu Asn Lys
 100 105 110
 Leu Lys Leu Val His Ser Asn Leu Glu Asp Asp Pro Glu Glu Ile Arg
 115 120 125
 Met Glu Phe
 130

<210> 5247
 <211> 1004
 <212> DNA
 <213> Homo sapiens

<400> 5247
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 ctccggccgg ctaagccgcg gcggacaact atgctgaaag ccaagatcct cttcgtgggg
 120
 ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact
 180
 gaatacagcc caacccaagg agtgaggatc ctagaatttg agaaccogca tgttaccagc
 240

aacaacaaag gcacgggctg tgaattcgag ctatgggact gtggggcgga tgctaagttt
300
gagtcctgct ggccggccct gatgaaggat gctcatggag tggatgatcgt cttcaatgct
360
gacatcccaa gccaccggaa ggaaatggag atgtggtatt cctgctttgt ccaacagccg
420
tccttacagg acacacagtg tatgctaatt gcacaccaca aaccaggctc tggagatgat
480
aaaggaagcc tgtctttgtc gccacccttg aacaagctga agctggtgca ctcaaacctg
540
gaagatgacc ctgaggagat cggatggaa ttcataaagt atttaaaaag cataatcaac
600
tccatgtctg agagcagaga caggaggagg atgtcaatta tgacctagcc agccttcacc
660
tgggactgcc acatccccag tgaaatcagc atgtttctcg gtgcagatct gaaatcacat
720
ccagctcctg atgttttctt ctccctctga ctgcagagga agtggtccta cctgcaggaa
780
ggcacctgtc acacagggcg ttcactcaga ccatctgtgc tctgccctga gttcagttga
840
gaaaatccta ttatcaaatt tggatttctt ggccccagaa cttcccaaag acctgtaaaa
900
tggagggatt taccacctca catatgtcca gttaaacagt ttgtggactt gtaaccgtcg
960
cagcccaatg atacaacagt agtttaatca cgtgaaaaaa aaaa
1004

<210> 5248

<211> 185

<212> PRT

<213> Homo sapiens

<400> 5248

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
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Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25						30	
Ser	Pro	Thr	Gln	Gly	Val	Arg	Ile	Leu	Glu	Phe	Glu	Asn	Pro	His	Val
		35				40						45			
Thr	Ser	Asn	Asn	Lys	Gly	Thr	Gly	Cys	Glu	Phe	Glu	Leu	Trp	Asp	Cys
		50				55					60				
Gly	Gly	Asp	Ala	Lys	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met	Lys	Asp
65				70				75						80	
Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser	His	Arg
			85					90						95	
Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro	Ser	Leu
		100						105					110		
Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly	Ser	Gly
	115					120						125			
Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys	Leu	Lys
	130					135					140				
Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg	Met	Glu
145				150				155						160	
Phe	Ile	Lys	Tyr	Leu	Lys	Ser	Ile	Ile	Asn	Ser	Met	Ser	Glu	Ser	Arg

165 170 175
 Asp Arg Glu Glu Met Ser Ile Met Thr
 180 185
 <210> 5249
 <211> 653
 <212> DNA
 <213> Homo sapiens
 <400> 5249
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 taccggggct ggctagtcac gggggagccc agtagagagg agtataaaat ccagtccttt
 120
 gatgcagaga cccagcagct gctgaagaca gcactcaaag atccgggtgc tgtggacttg
 180
 gagaaagtgg ccaatgtgat tgtggaccat tctctgcagg actgtgtgtt cagcaaggaa
 240
 gcaggacgca tgtgtacgc catcattcag gcagagagta aacaagcagg ccagagtgtc
 300
 ttccgacgtg gactcctcaa ccggctgcag caggagtacc aggctcggga gcagctgcga
 360
 gcacgctccc tgcagggctg ggtctgctat gtcaccttta tctgcaacat ctttgactac
 420
 ctgaggggtga acaacatgcc catgatggcc ctggtgaacc ctgtctatga ctgcctcttc
 480
 cggtctggccc agccagacag tttgagcaag gaggaggagg tggactgttt ggtgctgcag
 540
 ctgcaccggg ttggggagca gctggagaaa atgaatgggc agcgcatgga tgagctcttt
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 653

<210> 5250
 <211> 217
 <212> PRT
 <213> Homo sapiens

<400> 5250
 Xaa Arg Val Arg Ala Thr Gly Pro Ala Gly Ala Val Leu Ile Pro Ser
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 Pro Val Lys Ser Tyr Arg Gly Trp Leu Val Met Gly Glu Pro Ser Arg
 20 25 30
 Glu Glu Tyr Lys Ile Gln Ser Phe Asp Ala Glu Thr Gln Gln Leu Leu
 35 40 45
 Lys Thr Ala Leu Lys Asp Pro Gly Ala Val Asp Leu Glu Lys Val Ala
 50 55 60
 Asn Val Ile Val Asp His Ser Leu Gln Asp Cys Val Phe Ser Lys Glu
 65 70 75 80
 Ala Gly Arg Met Cys Tyr Ala Ile Ile Gln Ala Glu Ser Lys Gln Ala
 85 90 95
 Gly Gln Ser Val Phe Arg Arg Gly Leu Leu Asn Arg Leu Gln Gln Glu
 100 105 110
 Tyr Gln Ala Arg Glu Gln Leu Arg Ala Arg Ser Leu Gln Gly Trp Val


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      115              120              125
Cys Tyr Val Thr Phe Ile Cys Asn Ile Phe Asp Tyr Leu Arg Val Asn
      130              135              140
Asn Met Pro Met Met Ala Leu Val Asn Pro Val Tyr Asp Cys Leu Phe
145              150              155              160
Arg Leu Ala Gln Pro Asp Ser Leu Ser Lys Glu Glu Glu Val Asp Cys
      165              170              175
Leu Val Leu Gln Leu His Arg Val Gly Glu Gln Leu Glu Lys Met Asn
      180              185              190
Gly Gln Arg Met Asp Glu Leu Phe Val Leu Ile Arg Asp Gly Phe Leu
      195              200              205
Leu Pro Thr Gly Leu Ser Ser Leu Ala
      210              215

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<210> 5251
 <211> 372
 <212> DNA
 <213> Homo sapiens

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<400> 5251
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caccacagcg ggacggcact tcattatgac gatgtcccg tcatcaacgg ctcgggggaa
120
ccggaagacg gctttctctgc tttctgcagc agaagcttgg gagaagaagg ggcttttgaa
180
aaccacaggcc tgtaacgataa ctggccgcct ccgcacatct ttgcccgcta ctctctgct
240
gacagaaagg cctctaggct gtctgtgac aagctgtcct ctaaccatta caaataccct
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gcctctgctc agtctgtcac taatacctct tctgtgggga gggcgctctc cgggctcaac
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tcgcagcctc ag
372

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<210> 5252
 <211> 124
 <212> PRT
 <213> Homo sapiens

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<400> 5252
Met Asn Arg Arg Val Ile Ser Ala Asn Pro Tyr Leu Gly Gly Thr Ser
  1              5              10              15
Asn Gly Tyr Ala His Pro Ser Gly Thr Ala Leu His Tyr Asp Asp Val
      20              25              30
Pro Cys Ile Asn Gly Ser Gly Glu Pro Glu Asp Gly Phe Pro Ala Phe
      35              40              45
Cys Ser Arg Ser Leu Gly Glu Gly Ala Phe Glu Asn Pro Gly Leu
      50              55              60
Tyr Asp Asn Trp Pro Pro His Ile Phe Ala Arg Tyr Ser Pro Ala
      65              70              75              80
Asp Arg Lys Ala Ser Arg Leu Ser Ala Asp Lys Leu Ser Ser Asn His
      85              90              95
Tyr Lys Tyr Pro Ala Ser Ala Gln Ser Val Thr Asn Thr Ser Ser Val

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100 105 110
 Gly Arg Ala Ser Leu Gly Leu Asn Ser Gln Pro Gln
 115 120

<210> 5253
 <211> 898
 <212> DNA
 <213> Homo sapiens

<400> 5253
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 ccacagtgc tttccagtc agcaaatgga aatctgggga gtctatactt tgctcacaac
 120
 tcattctcaat gccatccttg tggagagcca cagtgtagtg caagggtcca tccaattcac
 180
 tgtggacaag gtcttgagc aacatcacca ggctgccaag gctcagcaga aactacaggc
 240
 ctcaactctca gtggctgtga actccatcat gagtattctg actggaagca ctaggagcag
 300
 cttccgaaag atgtgtctcc agacccttca agcagctgac acacaagagt tcaggaccaa
 360
 actgcacaaa gtatttcgtg agatcaccca acaccaattt cttcaccact gctcatgtga
 420
 ggtgaagcag cagctaaccc tagaaaaaaa ggactcagcc cagggcactg aggacgcacc
 480
 tgataacagc agcctggagc tcttagcaga taccagcggg caagcagaaa acaagaggct
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 caagaggggc agccccgcga tagaggagat gcgagctctg cgctctgcca gggccccgag
 600
 cccgtcagag gccgccccgc gccgccccga agccaccgag gccccctca ctcttagagg
 660
 aaggagcac cgcgaggctc acggcagggc cctggcgccg ggcagggcga gcctcggaag
 720
 ccgcctggag gacgtgctgt ggctgcagga ggtctccaac ctgtcagagt ggctgagtcc
 780
 cagccctggg ccctgagcgg ggtcccttcc cgcaagcgcc caccgatccg gaggctgcgg
 840
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 898

<210> 5254
 <211> 56
 <212> PRT
 <213> Homo sapiens

<400> 5254
 Gln Gln Pro Gly Ala Pro Ser Arg Tyr Gln Arg Ala Ser Arg Lys Gln
 1 5 10 15
 Glu Ala Gln Glu Gly Gln Pro Pro His Arg Gly Asp Ala Ser Ser Ala
 20 25 30
 Leu Cys Gln Gly Pro Glu Pro Val Arg Gly Arg Pro Ala Pro Pro Gly
 35 40 45
 Ser His Arg Gly Pro Pro His Ser

50

55

<210> 5255
<211> 1410
<212> DNA
<213> Homo sapiens

<400> 5255
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caaccccaga tccccatgcc tcgagccctg gatctccaag ctccagctgct ggattctgga
120
tgtcaacaaa cctcaccact ggatcctgac aaccacaatg cctggatcct ggggccccca
180
tcactggatc ccagatcccc tcactccacc cactggatc ctgcattggt ttttggtttt
240
ttgttttttt ttaacctcga cactgggtct cagatccttc tgctgactgc cagatccctg
300
catttcaage actacgcctt ccaccccag gcactggatc ccagattccc aagccttcac
360
ccaccagatt ctggctccta aaacaagtgc gggggccccca gtggcacagc aagtggatcc
420
tggcaactgc agctgctgga ttccagatc tgggtcccca atccctctgc ccagtccttc
480
aatgttgaaa cctcatctct tgaaggcaga tcctgatatt ccaaggcact gaatcccaag
540
ccctgaatcc ccggtttctg atctgaatct tccaggcgcc ggggtccaaa tgttcaggcc
600
ccaagtctag atcctggcag ccagtcaca gagtatccca cacacactgg tgcccagagc
660
cggcttctca tgacatgaaa ttgcatggtc gagggagtct gtggggaagg aagcccaggt
720
cctggctgca acctgcacgg atgctggatt cccctcacc ccacctctgc atggccaccc
780
cctcccagcc ctgtggggaa actgttccct ggaaccactc cactccctgc atccccacac
840
ttcacagcat cttccatccc cctcccacct tctaggcgaa tagtccccag agctgtgttc
900
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960
agggacacat gaagggatgt cccacccca gcactatcag ggcctccca ggcttccaga
1020
gttgaaagcc aggagaaaat cggcaaagac cacccttccc taaaccaag cacccaatga
1080
tgcaaaaaac aaaaacaaaa aaaaccacca aatccccaaa ttcattccag atctattttt
1140
ctaccagaga gaggagcaaa gtccctctcc cctgcgcctt tacattctgc acttcatagt
1200
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1260
gatttgggga ggggctggag gacttccgca cgcttcacc tccttcgacc tccactgcgc
1320
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1380

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1410

<210> 5256

<211> 95

<212> PRT

<213> Homo sapiens

<400> 5256

Met	Val	Glu	Gly	Val	Cys	Gly	Glu	Gly	Ser	Pro	Gly	Pro	Gly	Cys	Asn
1			5					10					15		
Leu	His	Gly	Cys	Trp	Ile	Pro	Pro	His	Pro	Thr	Ser	Ala	Trp	Pro	Pro
		20					25					30			
Pro	Pro	Ser	Pro	Val	Gly	Lys	Leu	Phe	Pro	Gly	Thr	Thr	Pro	Leu	Pro
		35				40					45				
Ala	Ser	Pro	His	Phe	Thr	Ala	Ser	Ser	Ile	Pro	Leu	Pro	Pro	Ser	Arg
	50					55				60					
Arg	Ile	Val	Pro	Arg	Ala	Val	Phe	Leu	Gln	Gly	Val	Arg	Gly	Ile	Thr
65				70					75					80	
His	Ser	Trp	Arg	Leu	Ala	Arg	Arg	Gln	Ser	Glu	Ala	Arg	Asp	Thr	
			85					90						95	

<210> 5257

<211> 1366

<212> DNA

<213> Homo sapiens

<400> 5257

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120
tcctcctact ccgcatecgc cgagcctgcc cgggtccgcg gccttgtcta tgggcaccac
180
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240
gatgtccgtg tgaagatgct ggcggcccct atcaatccat ctgacataaa tatgatccaa
300
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360
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420
aatgctggtt tagactcagg aacctggcgg accgaggctg tggtcagcga ggaagcactg
480
atccaagttc cgagtgcacat cctcttccag agcgtgccca cctgggtgt caatccctgc
540
acagcctaca ggatgttgat ggacttcgag caactgcagc caggggattc tgtcatccag
600
aatgcatcca acagcggagt ggggcaagca gtcattccaga tcgcccagc cctgggccta
660
agaacatca atgtggtccg agacagacct gatattccaga agctgagtga cagactgaag
720
agtctggggg ctgagcatgt catcacagaa gaggagctaa gaaggcccga aatgaaaaac
780

ttctttaagg acatgcccc gccacggctt gctctcaact gtgttggtgg gaaaagctcc
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 960
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 1020
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 1366

<210> 5258

<211> 375

<212> PRT

<213> Homo sapiens

<400> 5258

Met	Trp	Val	Cys	Ser	Thr	Leu	Trp	Arg	Val	Arg	Thr	Pro	Pro	Gly	Ser
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Gly	Gly	Gly	Leu	Leu	Pro	Ala	Ser	Gly	Cys	His	Gly	Pro	Ala	Ala	Ser
			20					25					30		
Ser	Tyr	Ser	Ala	Ser	Ala	Glu	Pro	Ala	Arg	Val	Arg	Gly	Leu	Val	Tyr
		35					40					45			
Gly	His	His	Gly	Asp	Pro	Ala	Lys	Val	Val	Glu	Leu	Lys	Asn	Leu	Glu
	50					55					60				
Leu	Ala	Ala	Val	Arg	Gly	Ser	Asp	Val	Arg	Val	Lys	Met	Leu	Ala	Ala
65				70					75					80	
Pro	Ile	Asn	Pro	Ser	Asp	Ile	Asn	Met	Ile	Gln	Gly	Asn	Tyr	Gly	Leu
		85						90					95		
Leu	Pro	Glu	Leu	Pro	Ala	Val	Gly	Gly	Asn	Glu	Gly	Val	Ala	Gln	Val
		100					105					110			
Val	Ala	Val	Gly	Ser	Asn	Val	Thr	Gly	Leu	Lys	Pro	Gly	Asp	Trp	Val
	115					120						125			
Ile	Pro	Ala	Asn	Ala	Gly	Leu	Asp	Ser	Gly	Thr	Trp	Arg	Thr	Glu	Ala
	130				135					140					
Val	Phe	Ser	Glu	Glu	Ala	Leu	Ile	Gln	Val	Pro	Ser	Asp	Ile	Pro	Leu
145				150					155					160	
Gln	Ser	Ala	Ala	Thr	Leu	Gly	Val	Asn	Pro	Cys	Thr	Ala	Tyr	Arg	Met
		165						170					175		
Leu	Met	Asp	Phe	Glu	Gln	Leu	Gln	Pro	Gly	Asp	Ser	Val	Ile	Gln	Asn
	180					185						190			
Ala	Ser	Asn	Ser	Gly	Val	Gly	Gln	Ala	Val	Ile	Gln	Ile	Ala	Ala	Ala
	195					200				205					
Leu	Gly	Leu	Arg	Thr	Ile	Asn	Val	Val	Arg	Asp	Arg	Pro	Asp	Ile	Gln

210		215		220
Lys Leu Ser Asp Arg	Leu Lys Ser Leu Gly Ala	Glu His Val Ile Thr		
225	230	235	240	
Glu Glu Glu Leu Arg Arg	Pro Glu Met Lys Asn Phe Phe	Lys Asp Met		
	245	250	255	
Pro Gln Pro Arg Leu Ala	Leu Asn Cys Val Gly Gly	Lys Ser Ser Thr		
	260	265	270	
Glu Leu Leu Arg Gln Leu	Ala Arg Gly Gly Thr Met	Val Thr Tyr Gly		
	275	280	285	
Gly Met Ala Lys Gln Pro	Val Val Ala Ser Val	Ser Leu Leu Ile Phe		
	290	295	300	
Lys Asp Leu Lys Leu Arg	Gly Phe Trp Leu Ser	Gln Trp Lys Lys Asp		
305	310	315	320	
His Ser Pro Asp Gln Phe	Lys Glu Leu Ile Leu	Thr Leu Cys Asp Leu		
	325	330	335	
Ile Arg Arg Gly Gln Leu	Thr Ala Pro Ala Cys	Ser Gln Val Pro Leu		
	340	345	350	
Gln Asp Tyr Gln Ser Ala	Leu Glu Ala Ser Met	Lys Pro Phe Ile Ser		
	355	360	365	
Ser Lys Gln Ile Leu Thr	Met			
370	375			

<210> 5259
 <211> 306
 <212> DNA
 <213> Homo sapiens

<400> 5259
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 120
 actttcccaa acctgggcct tctgctagag aagttgcaga aatcagccac tttgccaagc
 180
 accacagtcc aaccaagccc tgatgattat gggactgagc tattgagacg ctatcatgaa
 240
 aacctctctg agattttcac agacaaccag attttattaa agatgatctc acacatgaca
 300
 agttta
 306

<210> 5260
 <211> 83
 <212> PRT
 <213> Homo sapiens

<400> 5260
 Met Thr Glu Glu Lys Thr Leu Thr Ala Glu Gly Leu Val Lys Leu Leu
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 Gln Ala Val Lys Thr Thr Phe Pro Asn Leu Gly Leu Leu Leu Glu Lys
 20 25 30
 Leu Gln Lys Ser Ala Thr Leu Pro Ser Thr Thr Val Gln Pro Ser Pro
 35 40 45
 Asp Asp Tyr Gly Thr Glu Leu Leu Arg Arg Tyr His Glu Asn Leu Ser

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<212> PRT

<213> Homo sapiens

<400> 5262

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<400> 5266

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<210> 5270
<211> 327
<212> PRT
<213> Homo sapiens

<400> 5270
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Gln Pro Ile Ser Glu Glu Glu Ala Ile Gln Ile Ile Ala Asp Pro Pro
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Leu Pro Pro Ala Ser Phe Thr Leu Arg Asp Tyr Val Asp His Ser Glu
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Thr Leu Gln Lys Leu Val Leu Leu Gly Val Asp Leu Ser Lys Ile Glu
65 70 75 80
Lys His Pro Glu Ala Ala Asn Leu Leu Leu Arg Leu Asp Phe Glu Lys
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Asp Ile Lys Gln Met Leu Leu Phe Leu Lys Asp Val Gly Ile Glu Asp
100 105 110
Asn Gln Leu Gly Ala Phe Leu Thr Lys Asn His Ala Ile Phe Ser Glu
115 120 125
Asp Leu Glu Asn Leu Lys Thr Arg Val Ala Tyr Leu His Ser Lys Asn
130 135 140
Phe Ser Lys Ala Asp Val Ala Gln Met Val Arg Lys Ala Pro Phe Leu
145 150 155 160
Leu Asn Phe Ser Val Glu Arg Leu Asp Asn Arg Leu Gly Phe Phe Gln
165 170 175
Lys Glu Leu Glu Leu Ser Val Lys Lys Thr Arg Asp Leu Val Val Arg
180 185 190
Leu Pro Arg Leu Leu Thr Gly Ser Leu Glu Pro Val Lys Glu Asn Met
195 200 205
Lys Val Tyr Arg Leu Glu Leu Gly Phe Lys His Asn Glu Ile Gln His
210 215 220
Met Ile Thr Arg Ile Pro Lys Met Leu Thr Ala Asn Lys Met Lys Leu
225 230 235 240
Thr Glu Thr Phe Asp Phe Val His Asn Val Met Ser Ile Pro His His
245 250 255
Ile Ile Val Lys Phe Pro Gln Val Phe Asn Thr Arg Leu Phe Lys Val
260 265 270
Lys Glu Arg His Leu Phe Leu Thr Tyr Leu Gly Arg Ala Gln Tyr Asp
275 280 285
Pro Ala Lys Pro Asn Tyr Ile Ser Leu Asp Lys Leu Val Ser Ile Pro
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<211> 1185

<212> DNA

<213> Homo sapiens

<400> 5271

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<211> 385

<212> PRT

<213> Homo sapiens

<400> 5272

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			20					25					30		
Glu	Cys	Gly	Asn	Val	Thr	Gly	Ala	Ser	Ser	Pro	Ser	Arg	Thr	Pro	Phe
			35				40					45			
Gln	Asn	Pro	Ser	Leu	Leu	Leu	Val	His	Lys	Gln	Lys	Leu	Ala	Lys	Trp
			50				55				60				
Val	Ala	Ile	Gln	Ser	Val	Ser	Ala	Trp	Pro	Glu	Lys	Arg	Gly	Glu	Ile
							70			75				80	
Arg	Arg	Met	Met	Glu	Val	Ala	Ala	Ala	Asp	Val	Lys	Gln	Leu	Gly	Gly

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 Gln Lys Lys Thr Val Cys Ile Tyr Gly His Leu Asp Val Gln Pro Ala
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 225 230 235 240
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 245 250 255
 Ile Glu Val Glu Cys Ser Asn Lys Asp Leu His Ser Gly Val Tyr Gly
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 Gly Ser Val His Glu Ala Met Thr Asp Leu Ile Leu Leu Met Gly Ser
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 290 295 300
 Val Ala Ala Val Thr Glu Glu Glu His Lys Leu Tyr Asp Asp Ile Asp
 305 310 315 320
 Phe Asp Ile Glu Glu Phe Ala Lys Asp Val Gly Ala Gln Ile Leu Leu
 325 330 335
 His Ser His Lys Lys Asp Ile Leu Met His Arg Trp Arg Tyr Pro Ser
 340 345 350
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<210> 5273

<211> 4580

<212> DNA

<213> Homo sapiens

<400> 5273

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<210> 5274

<211> 185

<212> PRT

<213> Homo sapiens

<400> 5274

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			20					25					30		
Val	Thr	Pro	Arg	Ile	Tyr	Val	Gly	Asn	Ala	Ser	Val	Ala	Gln	Asp	Ile
		35					40					45			
Pro	Lys	Leu	Gln	Lys	Leu	Gly	Ile	Thr	His	Val	Leu	Asn	Ala	Ala	Glu
	50					55					60				
Gly	Arg	Ser	Phe	Met	His	Val	Asn	Thr	Asn	Ala	Asn	Phe	Tyr	Lys	Asp

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Ser Gly Ile Thr Tyr Leu Gly Ile Lys Ala Asn Asp Thr Gln Glu Phe
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Asn Leu Ser Ala Tyr Phe Glu Arg Ala Ala Asp Phe Ile Asp Gln Ala
      100        105        110
Leu Ala Gln Lys Asn Gly Arg Val Leu Val His Cys Arg Glu Gly Tyr
      115        120        125
Ser Arg Ser Pro Thr Leu Val Ile Ala Tyr Leu Met Met Arg Gln Lys
      130        135        140
Met Asp Val Lys Ser Ala Leu Ser Ile Val Arg Gln Asn Arg Glu Ile
      145        150        155        160
Gly Pro Asn Asp Gly Phe Leu Ala Gln Leu Cys Gln Leu Asn Asp Arg
      165        170        175
Leu Ala Lys Glu Gly Lys Leu Lys Pro
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<210> 5275
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 <212> DNA
 <213> Homo sapiens

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<210> 5276
 <211> 125
 <212> PRT

<213> Homo sapiens

<400> 5276

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      20           25           30
Glu Glu Met Tyr Asp Ile Phe Gly Lys Tyr Gly Pro Ile Arg Gln Ile
      35           40           45
Arg Val Gly Asn Thr Pro Glu Thr Arg Gly Thr Ala Tyr Val Val Tyr
      50           55           60
Glu Asp Ile Phe Asp Ala Lys Asn Ala Cys Asp His Leu Ser Gly Phe
      65           70           75           80
Asn Val Cys Asn Arg Tyr Leu Val Val Leu Tyr Tyr Asn Ala Asn Arg
      85           90           95
Ala Phe Gln Lys Met Asp Thr Lys Lys Lys Glu Glu Gln Leu Lys Leu
      100          105          110
Leu Lys Glu Lys Tyr Gly Ile Asn Thr Asp Pro Pro Lys
      115          120          125

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<210> 5277

<211> 612

<212> DNA

<213> Homo sapiens

<400> 5277

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<210> 5278

<211> 123

<212> PRT

<213> Homo sapiens

<400> 5278

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20           25           30
Val Lys Tyr Asp Pro His Thr Leu Thr Leu Ser Leu Pro Phe Tyr Ile
35           40           45
Ser Gln Cys Trp Thr Leu Gly Ser Val Leu Ala Leu Thr Trp Thr Val
50           55           60
Trp Arg Phe Phe Leu Arg Asp Ile Thr Leu Arg Tyr Lys Glu Thr Arg
65           70           75           80
Trp Gln Lys Trp Gln Asn Lys Asp Asp Gln Gly Ser Thr Val Gly Asn
85           90           95
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100          105          110
Val Ala Glu Gly Glu Gly Ala Pro Thr Pro Asn
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<210> 5279

<211> 1225

<212> DNA

<213> Homo sapiens

<400> 5279

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900

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<210> 5280

<211> 408

<212> PRT

<213> Homo sapiens

<400> 5280

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Ser	Pro	Asp	Ala	Pro	Asp	Phe	Gln	Leu	Gln	Ala	Met	Ile	Gln	Ala	Ala
			20					25					30		
Gly	Lys	Leu	Val	Leu	Ile	Asp	Lys	Leu	Leu	Pro	Lys	Leu	Ile	Ala	Gly
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Gly	His	Lys	Val	Leu	Ile	Phe	Ser	Gln	Met	Val	Arg	Cys	Leu	Asp	Ile
	50					55				60					
Leu	Glu	Asp	Tyr	Leu	Ile	Gln	Arg	Arg	Tyr	Thr	Tyr	Glu	Arg	Ile	Asp
65					70				75					80	
Gly	Arg	Val	Arg	Gly	Asn	Leu	Arg	Gln	Ala	Ala	Ile	Asp	Arg	Phe	Ser
			85					90					95		
Lys	Pro	Asp	Ser	Asp	Arg	Phe	Val	Phe	Leu	Leu	Cys	Thr	Arg	Ala	Gly
			100					105					110		
Gly	Leu	Gly	Ile	Asn	Leu	Thr	Ala	Ala	Asp	Thr	Cys	Ile	Ile	Phe	Asp
		115				120					125				
Ser	Asp	Trp	Asn	Pro	Gln	Asn	Asp	Leu	Gln	Ala	Gln	Ala	Arg	Cys	His
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Arg	Ile	Gly	Gln	Ser	Lys	Ala	Val	Lys	Val	Tyr	Arg	Leu	Ile	Thr	Arg
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Asn	Ser	Tyr	Glu	Arg	Glu	Met	Phe	Asp	Lys	Ala	Ser	Leu	Lys	Leu	Gly
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Leu	Asp	Lys	Ala	Val	Leu	Gln	Thr	Ser	Thr	Glu	Arg	Ala	Ala	Pro	Met
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Gly	Thr	Ala	Leu	Ser	Lys	Met	Glu	Val	Glu	Asp	Leu	Leu	Arg	Lys	Gly
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Ala	Tyr	Gly	Ala	Leu	Met	Asp	Glu	Glu	Asp	Glu	Gly	Ser	Lys	Phe	Cys
	210				215					220					
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225					230					235					240
Ile	Gln	Ser	Glu	Gly	Lys	Gly	Ser	Thr	Phe	Ala	Lys	Ala	Ser	Phe	Val
			245					250					255		
Ala	Ser	Gly	Asn	Arg	Thr	Asp	Ile	Ser	Leu	Asp	Asp	Pro	Asn	Phe	Trp
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Gln	Lys	Trp	Ala	Lys	Ile	Ala	Glu	Leu	Asp	Thr	Glu	Ala	Lys	Asn	Glu

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305              310              315              320
Asp Ser Asp Ser Asp Glu Arg Pro Thr Arg Ser Arg Arg Leu Asn Asp
      325              330              335
Lys Ala Arg Arg Tyr Leu Arg Ala Glu Cys Phe Arg Val Glu Lys Asn
      340              345              350
Leu Leu Ile Phe Gly Trp Gly Arg Trp Lys Asp Ile Leu Thr His Gly
      355              360              365
Arg Phe Lys Trp His Leu Asn Glu Lys Asp Met Glu Met Ile Cys Arg
      370              375              380
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385              390              395              400
Lys Ser Phe Ile Trp Glu Leu Ile
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<210> 5281

<211> 336

<212> DNA

<213> Homo sapiens

<400> 5281

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<210> 5282

<211> 91

<212> PRT

<213> Homo sapiens

<400> 5282

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      20              25              30
Gly Asp Thr Ala Ile Ser Ser Glu Glu Lys Thr Gln Arg Met Ser Leu
      35              40              45
Met Arg His His Met Gly Gln Ser Leu Ser Lys Glu Val Ala His Val
      50              55              60
Leu Thr Lys Pro Gly Ala Asp His Asp Trp Glu Asn Leu Glu Lys Asp
      65              70              75              80
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<210> 5283
<211> 1989
<212> DNA
<213> Homo sapiens

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240
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1380

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 1860
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<210> 5284

<211> 258

<212> PRT

<213> Homo sapiens

<400> 5284

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		20						25					30		
Ala	Glu	Ser	Arg	Asp	Gly	Leu	Val	Ser	Val	Tyr	Pro	Ala	Pro	Gln	Tyr
		35				40						45			
Gln	Ser	His	Arg	Val	Gly	Ala	Ser	Thr	Val	Pro	Ala	Ser	Leu	Asp	Ser
		50				55					60				
Ser	Arg	Ser	Glu	Pro	Met	Gln	Gln	Leu	Leu	Asp	Pro	Asn	Thr	Leu	Gln
65					70					75				80	
Gln	Ser	Val	Glu	Ser	Arg	Tyr	Arg	Pro	Asn	Ile	Ile	Leu	Tyr	Ser	Glu
			85						90					95	
Gly	Val	Leu	Arg	Ser	Trp	Gly	Asp	Gly	Val	Ala	Ala	Asp	Cys	Cys	Glu
			100					105					110		
Thr	Thr	Phe	Ile	Glu	Asp	Arg	Ser	Pro	Thr	Lys	Asp	Ser	Leu	Glu	Tyr
		115					120					125			
Pro	Asp	Gly	Lys	Phe	Ile	Asp	Leu	Ser	Ala	Asp	Asp	Ile	Lys	Ile	His
		130				135					140				
Thr	Leu	Ser	Tyr	Asp	Val	Glu	Glu	Glu	Glu	Phe	Gln	Glu	Leu	Glu	
145				150					155					160	
Ser	Asp	Tyr	Ser	Ser	Asp	Thr	Glu	Ser	Glu	Asp	Asn	Phe	Leu	Met	Met
			165						170					175	
Pro	Pro	Arg	Asp	His	Leu	Gly	Leu	Ser	Val	Phe	Ser	Met	Leu	Cys	Cys
			180					185					190		
Phe	Trp	Pro	Leu	Gly	Ile	Ala	Ala	Phe	Tyr	Leu	Ser	His	Glu	Thr	Asn

	195		200		205	
Lys	Ala	Val	Ala	Lys	Gly	Asp
	210		215		220	
Arg	Ala	Leu	Phe	Leu	Ala	Val
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<210> 5285

<211> 2155

<212> DNA

<213> Homo sapiens

<400> 5285

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<210> 5286

<211> 628

<212> PRT

<213> Homo sapiens

<400> 5286

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Ala	Arg	Thr	Asp	Glu	Val	Pro	Ala	Gly	Gly	Ser	Arg	Ser	Glu	Ala	Glu
		20					25						30		
Asp	Glu	Asp	Asp	Glu	Asp	Tyr	Val	Pro	Tyr	Val	Pro	Leu	Arg	Gln	Arg
	35					40					45				
Arg	Gln	Leu	Leu	Leu	Gln	Lys	Leu	Leu	Gln	Arg	Arg	Arg	Lys	Gly	Ala
	50				55					60					
Ala	Glu	Glu	Glu	Gln	Gln	Asp	Ser	Gly	Ser	Glu	Pro	Arg	Gly	Asp	Glu
65				70					75					80	
Asp	Asp	Ile	Pro	Leu	Gly	Pro	Gln	Ser	Asn	Val	Ser	Leu	Leu	Asp	Gln
		85					90						95		
His	Gln	His	Leu	Lys	Glu	Lys	Ala	Glu	Ala	Arg	Lys	Glu	Ser	Ala	Lys

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 Glu Lys Gln Leu Lys Glu Glu Glu Lys Ile Leu Glu Ser Val Ala Glu
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 Gly Arg Ala Leu Met Ser Val Lys Glu Met Ala Lys Gly Ile Thr Tyr
 130 135 140
 Asp Asp Pro Ile Lys Thr Ser Trp Thr Pro Pro Arg Tyr Val Leu Ser
 145 150 155 160
 Met Ser Glu Glu Arg His Glu Arg Val Arg Lys Lys Tyr His Ile Leu
 165 170 175
 Val Glu Gly Asp Gly Ile Pro Pro Pro Ile Lys Ser Phe Lys Glu Met
 180 185 190
 Lys Phe Pro Ala Ala Ile Leu Arg Gly Leu Lys Lys Lys Gly Ile His
 195 200 205
 His Pro Thr Pro Ile Gln Ile Gln Gly Ile Pro Thr Ile Leu Ser Gly
 210 215 220
 Arg Asp Met Ile Gly Ile Ala Phe Thr Gly Ser Gly Lys Thr Leu Val
 225 230 235 240
 Phe Thr Leu Pro Val Ile Met Phe Cys Leu Glu Gln Glu Lys Arg Leu
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 Pro Phe Ser Lys Arg Glu Gly Pro Tyr Gly Leu Ile Ile Cys Pro Ser
 260 265 270
 Arg Glu Leu Ala Arg Gln Thr His Gly Ile Leu Glu Tyr Tyr Cys Arg
 275 280 285
 Leu Leu Gln Glu Asp Ser Ser Pro Leu Leu Arg Cys Ala Leu Cys Ile
 290 295 300
 Gly Gly Met Ser Val Lys Glu Gln Met Glu Thr Ile Arg His Gly Val
 305 310 315 320
 His Met Met Val Ala Thr Pro Gly Arg Leu Met Asp Leu Leu Gln Lys
 325 330 335
 Lys Met Val Ser Leu Asp Ile Cys Arg Tyr Leu Ala Leu Asp Glu Ala
 340 345 350
 Asp Arg Met Ile Asp Met Gly Phe Glu Gly Asp Ile Arg Thr Ile Phe
 355 360 365
 Ser Tyr Phe Lys Gly Gln Arg Gln Thr Leu Leu Phe Ser Ala Thr Met
 370 375 380
 Pro Lys Lys Ile Gln Asn Phe Ala Lys Ser Ala Leu Val Lys Pro Val
 385 390 395 400
 Thr Ile Asn Val Gly Arg Ala Gly Ala Ala Ser Leu Asp Val Ile Gln
 405 410 415
 Glu Val Glu Tyr Val Lys Glu Glu Ala Lys Met Val Tyr Leu Leu Glu
 420 425 430
 Cys Leu Gln Lys Thr Pro Pro Pro Val Leu Ile Phe Ala Glu Lys Lys
 435 440 445
 Ala Asp Val Asp Ala Ile His Glu Tyr Leu Leu Leu Lys Gly Val Glu
 450 455 460
 Ala Val Ala Ile His Gly Gly Lys Asp Gln Glu Glu Arg Thr Lys Ala
 465 470 475 480
 Ile Glu Ala Phe Arg Glu Gly Lys Lys Asp Val Leu Val Ala Thr Asp
 485 490 495
 Val Ala Ser Lys Gly Leu Asp Phe Pro Ala Ile Gln His Val Ile Asn
 500 505 510
 Tyr Asp Met Pro Glu Glu Ile Glu Asn Tyr Val His Arg Ile Gly Arg
 515 520 525
 Thr Gly Arg Ser Gly Asn Thr Gly Ile Ala Thr Thr Phe Ile Asn Lys

530 535 540
 Ala Cys Asp Glu Ser Val Leu Met Asp Leu Lys Ala Leu Leu Leu Glu
 545 550 555 560
 Ala Lys Gln Lys Val Pro Pro Val Leu Gln Val Leu His Cys Gly Asp
 565 570 575
 Glu Ser Met Leu Asp Ile Gly Gly Glu Arg Gly Cys Ala Phe Cys Gly
 580 585 590
 Gly Leu Gly His Arg Ile Thr Asp Cys Pro Lys Leu Glu Ala Met Gln
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 <211> 581
 <212> DNA
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<400> 5287
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<210> 5288
 <211> 193
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 Arg Thr His Phe Val Leu Ser Pro His Cys Phe Met Gly Gly Ile Met

50 55 60
 Ala Pro Lys Asp Ile Met Thr Asn Thr His Ala Lys Ser Ile Leu Asn
 65 70 75 80
 Ser Met Asn Ser Leu Arg Lys Ser Asn Thr Leu Cys Asp Val Thr Leu
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 Arg Val Glu Gln Lys Asp Phe Pro Ala His Arg Ile Val Leu Ala Ala
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 Cys Ser Asp Tyr Phe Cys Ala Met Phe Thr Ser Glu Leu Ser Glu Lys
 115 120 125
 Gly Lys Pro Tyr Val Asp Ile Gln Gly Leu Thr Ala Ser Thr Met Glu
 130 135 140
 Ile Leu Leu Asp Phe Val Tyr Thr Glu Thr Val His Val Thr Val Glu
 145 150 155 160
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 Val Lys Gln Ala Cys Cys Glu Phe Leu Glu Ser Gln Leu Asp Pro Ser
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<210> 5289
 <211> 361
 <212> DNA
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 180
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 361

<210> 5290
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 <213> Homo sapiens

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 35 40 45
 Gly Leu Thr Arg Ile Trp Gln Asp Val Gln Leu Lys Val Lys Thr Tyr

50	55	60
Leu Leu Gly Thr Asp Leu Ser Ile Phe Lys Tyr Asp Asp Phe Ile Phe		
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Val Leu Asp Ile Ile Ser Arg Leu Met Gln Val Gly Glu Glu Phe		80
85	90	95

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 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 5292
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 35 40 45
 Met Val Ala Ser Val Ala Gly Gly Leu Gln Ala Gly Leu Asp Gly Glu
 50 55 60
 Ser Arg Gly Trp Ser Gly Gly Arg Gly Gln Pro His Pro Gly Gly Ala

65		70		75		80									
Arg	Gly	Gln	Arg	His	Thr	Val	Ala	Ala	Pro	Ala	Xaa	Arg	Ala	Arg	Ala
				85					90					95	
Gly	Ala	Glu	Pro	His	Ala	Ala	Ala	Ala	Pro	Arg	Arg	Leu	Pro	His	Ser
			100					105					110		
Pro	Pro	Pro	Arg	Ala	Gly	His	Pro	Ala	Pro	Gln	Leu	Ala	Gly	Trp	His
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<210> 5293
 <211> 1428
 <212> DNA
 <213> Homo sapiens

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 360
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 780
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 1428

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 <211> 290
 <212> PRT
 <213> Homo sapiens

<400> 5294
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 35 40 45
 Glu Glu Leu Ala Glu His Gly Ile Phe Leu Pro Pro Asn Met Gln Gly
 50 55 60
 Leu Thr Asp Asp Gln Ile Glu Glu Leu Lys Leu Lys Asp Glu Trp Gly
 65 70 75 80
 Glu Lys Cys Val Pro Ser Gly Gly Ala Val Phe Lys Lys Asp Asp Ile
 85 90 95
 Gly Arg Arg Asn Gly Gln Ala Pro Asn Glu Lys Met Lys Gln Val Leu
 100 105 110
 Lys Lys Thr Ile Glu Glu Ala Lys Ala Ile Ile Ser Lys Lys Gln Val
 115 120 125
 Glu Ala Gly Val Cys Val Thr Met Glu Met Val Lys Asp Ala Leu Asp
 130 135 140
 Gln Leu Arg Gly Ala Val Met Ile Val Tyr Pro Met Gly Leu Pro Pro
 145 150 155 160
 Tyr Asp Pro Ile Arg Met Glu Phe Glu Asn Lys Glu Asp Leu Ser Gly
 165 170 175
 Thr Gln Ala Gly Leu Asn Val Ile Lys Glu Ala Glu Ala Gln Leu Trp
 180 185 190
 Trp Ala Ala Lys Glu Leu Arg Arg Thr Lys Lys Leu Ser Asp Tyr Val
 195 200 205
 Gly Lys Asn Glu Lys Thr Lys Ile Ile Ala Lys Ile Gln Gln Arg Gly
 210 215 220
 Gln Gly Ala Pro Ala Arg Glu Pro Ile Ile Ser Ser Glu Glu Gln Lys
 225 230 235 240
 Gln Leu Met Leu Tyr Tyr His Arg Arg Gln Glu Glu Leu Lys Arg Leu
 245 250 255
 Glu Glu Asn Asp Asp Asp Ala Tyr Leu Asn Ser Pro Trp Ala Asp Asn
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 Thr Ala Leu Lys Arg His Phe His Gly Val Lys Asp Ile Lys Trp Arg
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290

<210> 5295

<211> 1451

<212> DNA

<213> Homo sapiens

<400> 5295

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780
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<210> 5296
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 5296
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 35 40 45
 Lys Asp Leu Ser Leu Ser Glu Asp Val Met Val Cys Phe Gly Asn Met
 50 55 60
 Phe Ile Lys Met Pro His Pro Glu Thr Lys Glu Met Ile Glu Lys Asp
 65 70 75 80
 Gln Asp His Leu Asp Lys Glu Ile Glu Lys Leu Arg Lys Gln Leu Lys
 85 90 95
 Val Lys Val Asn Arg Leu Phe Glu Ala Gln Gly Lys Pro Glu Leu Lys
 100 105 110
 Gly Phe Asn Leu Asn Pro Leu Asn Gln Asp Glu Leu Lys Ala Leu Lys
 115 120 125
 Val Ile Leu Lys Gly
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<210> 5297
 <211> 5318
 <212> DNA
 <213> Homo sapiens

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<210> 5298

<211> 663

<212> PRT

<213> Homo sapiens

<400> 5298

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 Pro Cys Asp Cys Gln Thr Trp Lys Asn Trp Leu Gln Lys Ile Thr Glu
 50 55 60
 Met Lys Pro Glu Glu Leu Val Gly Val Ser Glu Ala Tyr Glu Asp Ala
 65 70 75 80
 Ala Asn Cys Leu Trp Leu Leu Thr Asn Ser Lys Pro Cys Ala Asn Cys
 85 90 95
 Lys Ser Pro Ile Gln Lys Asn Glu Gly Cys Asn His Met Gln Cys Ala
 100 105 110
 Lys Cys Lys Tyr Asp Phe Cys Trp Ile Cys Leu Glu Glu Trp Lys Lys
 115 120 125
 His Ser Ser Ser Thr Gly Gly Tyr Tyr Gly Cys Thr Arg Tyr Glu Val
 130 135 140
 Ile Gln His Val Glu Glu Gln Ser Lys Glu Met Thr Val Glu Ala Glu
 145 150 155 160
 Lys Lys His Lys Arg Phe Gln Glu Leu Asp Arg Phe Met His Tyr Tyr
 165 170 175
 Thr Arg Phe Lys Asn His Glu His Ser Tyr Gln Leu Glu Gln Arg Leu
 180 185 190
 Leu Lys Thr Ala Lys Glu Lys Met Glu Gln Leu Ser Arg Ala Leu Lys
 195 200 205
 Glu Thr Glu Gly Gly Cys Pro Asp Thr Thr Phe Ile Glu Asp Ala Val
 210 215 220
 His Val Leu Leu Lys Thr Arg Arg Ile Leu Lys Cys Ser Tyr Pro Tyr
 225 230 235 240
 Gly Phe Phe Leu Glu Pro Lys Ser Thr Lys Lys Glu Ile Phe Glu Leu
 245 250 255
 Met Gln Thr Asp Leu Glu Met Val Thr Glu Asp Leu Ala Gln Lys Val
 260 265 270
 Asn Arg Pro Tyr Leu Arg Thr Pro Arg His Lys Ile Ile Lys Ala Ala
 275 280 285
 Cys Leu Val Gln Gln Lys Arg Gln Glu Phe Leu Ala Ser Val Ala Arg
 290 295 300
 Gly Val Ala Pro Ala Asp Ser Pro Glu Ala Pro Arg Arg Ser Phe Ala
 305 310 315 320
 Gly Gly Thr Trp Asp Trp Glu Tyr Leu Gly Phe Ala Ser Pro Glu Glu
 325 330 335
 Tyr Ala Glu Phe Gln Tyr Arg Arg Arg His Arg Gln Arg Arg Arg Gly
 340 345 350
 Asp Val His Ser Leu Leu Ser Asn Pro Pro Asp Pro Asp Glu Pro Ser
 355 360 365
 Glu Ser Thr Leu Asp Ile Pro Glu Gly Gly Ser Ser Ser Arg Arg Pro
 370 375 380
 Gly Thr Ser Val Val Ser Ser Ala Ser Met Ser Val Leu His Ser Ser

385 390 395 400
 Ser Leu Arg Asp Tyr Thr Pro Ala Ser Arg Ser Glu Asn Gln Asp Ser
 405 410 415
 Leu Gln Ala Leu Ser Ser Leu Asp Glu Asp Asp Pro Asn Ile Leu Leu
 420 425 430
 Ala Ile Gln Leu Ser Leu Gln Glu Ser Gly Leu Ala Leu Asp Glu Glu
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 Thr Arg Asp Phe Leu Ser Asn Glu Ala Ser Leu Gly Ala Ile Gly Thr
 450 455 460
 Ser Leu Pro Ser Arg Leu Asp Ser Val Pro Arg Asn Thr Asp Ser Pro
 465 470 475 480
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 485 490 495
 Met Arg Leu Gly Ala Glu Asn Asp Pro Phe Ser Thr Asp Thr Leu Ser
 500 505 510
 Ser His Pro Leu Ser Glu Ala Arg Ser Asp Phe Cys Pro Ser Ser Ser
 515 520 525
 Asp Pro Asp Ser Ala Gly Gln Asp Pro Asn Ile Asn Asp Asn Leu Leu
 530 535 540
 Gly Asn Ile Met Ala Trp Phe His Asp Met Asn Pro Gln Ser Ile Ala
 545 550 555 560
 Leu Ile Pro Pro Ala Thr Thr Glu Ile Ser Ala Asp Ser Gln Leu Pro
 565 570 575
 Cys Ile Lys Asp Gly Ser Glu Gly Val Lys Asp Val Glu Leu Val Leu
 580 585 590
 Pro Glu Asp Ser Met Phe Glu Asp Ala Ser Val Ser Glu Gly Arg Gly
 595 600 605
 Thr Gln Ile Glu Glu Asn Pro Leu Glu Glu Asn Ile Leu Ala Gly Glu
 610 615 620
 Ala Ala Ser Gln Ala Gly Asp Ser Gly Asn Glu Ala Ala Asn Arg Gly
 625 630 635 640
 Asp Gly Ser Asp Val Ser Ser Gln Thr Pro Gln Thr Ser Ser Asp Trp
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 Leu Glu Gln Val His Leu Val
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<210> 5299

<211> 368

<212> DNA

<213> Homo sapiens

<400> 5299

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<211> 1339

<212> PRT

<213> Homo sapiens

<400> 5302

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 <213> Homo sapiens

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 420
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
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<210> 5306
 <211> 62
 <212> PRT
 <213> Homo sapiens

<400> 5306
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 Gln Leu Ala Gly Pro Ser Leu Trp Leu Glu Leu Val Cys Val Tyr Leu
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 Ile Lys Ser His Arg Cys Leu Lys Lys Lys Lys Lys Lys Lys Lys
 35 40 45
 Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
 50 55 60

<210> 5307
 <211> 1551
 <212> DNA
 <213> Homo sapiens

<400> 5307
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 cattctgtct cccagccttt cttctctctt tgtgtgctcc cagcacttcc ttcttttcta
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 240
 tggacatctc ttccttggtg cagtggtttt taaatactga gaagaaccaa gtcagggtttt
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 360
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 420
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 480
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 660

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 720
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 1080
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 1260
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 1320
 caacttctct atgcatctgt gtgagcagat gatcattgta ttacctttta tcggtagtaa
 1380
 gcttggaata ataatttaag aatacaatgg agaaatgtaa ataagtatct atgtaaattt
 1440
 gtttaaaata aactgaatgt atttaatggc ccatttatat gttcttttat gtaacatgta
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 1551

<210> 5308
 <211> 112
 <212> PRT
 <213> Homo sapiens

<400> 5308
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 20 25 30
 Asp His His Arg Gly His Gly Pro Thr Ser Val Ile Trp Glu Thr Gly
 35 40 45
 Leu Gly Arg Gly Gly Asp Phe Pro Lys Ser Pro Ser Ile His Asp Arg
 50 55 60
 Gly Arg Ala Trp Glu Leu Gly Thr Gln Gly Ser Ser Lys Arg Ser Arg
 65 70 75 80
 Ser Leu Cys Tyr Pro Gln Ile His Lys Leu Arg Ile Thr Cys Ile His
 85 90 95
 Phe Pro Pro Pro Trp Thr Leu Cys Phe Glu Leu Phe Cys Leu Pro Asp
 100 105 110

<210> 5309
 <211> 2078

<212> DNA

<213> Homo sapiens

<400> 5309

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120
tccacccgca acgtactccg ggtcggcctt gcgctcgggg cctgagaggg gcggcggcgg
180
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240
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300
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360
gcgaacgagt cctgttctaa tactgcacct tctttaaccg tcctgaatg tgccatttgt
420
ctgcaaacat gtgttcatcc agtcagtctg ccctgtaagc acgttttctg ctatctatgt
480
gtaaaaggag cttcatggct tggaaagcgg tgtgctcttt gtcgacaaga aattcccag
540
gatttccttg acaagccaac cttgttgta ccagaagaac tcaaggcagc aagtagagga
600
aatggtgaat atgcatggta ttatgaagga agaaatgggt ggtggcagta cgatgagcgc
660
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720
gctggctttc tgtatgtcgc tgatcttgaa aacatgggtc aatataggag aaatgaacat
780
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1020
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1080
agtcataggg gagaaggaga agaagatcat gaatcaccat cttcaggcag ggtaccagca
1140
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gcagttgttg cacagcactc cttgacccaa cagagacttt tggtttctaa tgcaaaccag
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1380
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1440
cataacatta tactcatccc tagtagtgca ttttgggagt tggggtgagg aggggtatgg
1500

gaaggataga ctcataatta aaatgtctaa catgtctctg ttgagaaatt tattaatgt
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 1620
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 1680
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 1740
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 1800
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 1860
 tttatagtaa agttattgaa atggaaatga aaacagccag taacttatgt ttcagaatgt
 1920
 ttgtaacaca cttcatgggtg ttcccatagg ctttctgtc tagtcttata gtttgagggt
 1980
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 2040
 tatcaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa
 2078

<210> 5310

<211> 359

<212> PRT

<213> Homo sapiens

<400> 5310

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Thr	Asn	Arg	Lys	Ala	Asn	Glu	Ser	Cys	Ser	Asn	Thr	Ala	Pro	Ser	Leu
			20					25					30		
Thr	Val	Pro	Glu	Cys	Ala	Ile	Cys	Leu	Gln	Thr	Cys	Val	His	Pro	Val
			35				40					45			
Ser	Leu	Pro	Cys	Lys	His	Val	Phe	Cys	Tyr	Leu	Cys	Val	Lys	Gly	Ala
	50				55					60					
Ser	Trp	Leu	Gly	Lys	Arg	Cys	Ala	Leu	Cys	Arg	Gln	Glu	Ile	Pro	Glu
	65				70					75				80	
Asp	Phe	Leu	Asp	Lys	Pro	Thr	Leu	Leu	Ser	Pro	Glu	Glu	Leu	Lys	Ala
				85					90					95	
Ala	Ser	Arg	Gly	Asn	Gly	Glu	Tyr	Ala	Trp	Tyr	Tyr	Glu	Gly	Arg	Asn
			100					105					110		
Gly	Trp	Trp	Gln	Tyr	Asp	Glu	Arg	Thr	Ser	Arg	Glu	Leu	Glu	Asp	Ala
			115				120					125			
Phe	Ser	Lys	Gly	Lys	Lys	Asn	Thr	Glu	Met	Leu	Ile	Ala	Gly	Phe	Leu
	130					135					140				
Tyr	Val	Ala	Asp	Leu	Glu	Asn	Met	Val	Gln	Tyr	Arg	Arg	Asn	Glu	His
	145				150					155				160	
Gly	Arg	Arg	Arg	Lys	Ile	Lys	Arg	Asp	Ile	Ile	Asp	Ile	Pro	Lys	Lys
				165				170					175		
Gly	Val	Ala	Gly	Leu	Arg	Leu	Asp	Cys	Asp	Ala	Asn	Thr	Val	Asn	Leu
			180					185					190		
Ala	Arg	Glu	Ser	Ser	Ala	Asp	Gly	Ala	Asp	Ser	Val	Ser	Ala	Gln	Ser
	195						200					205			
Gly	Ala	Ser	Val	Gln	Pro	Leu	Val	Ser	Ser	Val	Arg	Pro	Leu	Thr	Ser

210	215	220
Val Asp Gly Gln Leu Thr Ser Pro Ala Thr Pro Ser Pro Asp Ala Ser		
225	230	235
Thr Ser Leu Glu Asp Ser Phe Ala His Leu Gln Leu Ser Gly Asp Asn		240
	245	250
Thr Ala Glu Arg Ser His Arg Gly Glu Gly Glu Glu Asp His Glu Ser		255
	260	265
Pro Ser Ser Gly Arg Val Pro Ala Pro Asp Thr Ser Ile Glu Glu Thr		270
	275	280
Glu Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser Ala Val Val Ala		285
	290	295
Gln His Ser Leu Thr Gln Gln Arg Leu Leu Val Ser Asn Ala Asn Gln		300
305	310	315
Thr Val Pro Asp Arg Ser Asp Arg Ser Gly Thr Asp Arg Ser Val Ala		320
	325	330
Gly Gly Gly Thr Val Ser Val Ser Val Arg Ser Arg Arg Pro Asp Gly		335
	340	345
Gln Cys Thr Val Thr Glu Val		350
355		

<210> 5311
 <211> 572
 <212> DNA
 <213> Homo sapiens

<400> 5311
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 120
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 240
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 300
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 360
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 420
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 480
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 540
 aaacatggat atggaatctg tcattccgac ac
 572

<210> 5312
 <211> 190
 <212> PRT
 <213> Homo sapiens

<400> 5312
 Cys His Cys Glu Gly Asp Asp Glu Ser Pro Leu Ile Thr Pro Cys His

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      1           5           10           15
Cys Thr Gly Ser Leu His Phe Val His Gln Ala Tyr Leu Gln Gln Trp
      20           25           30
Ile Lys Ser Ser Asp Thr Arg Cys Cys Glu Leu Cys Lys Tyr Glu Phe
      35           40           45
Ile Met Glu Thr Lys Leu Lys Pro Leu Arg Lys Trp Glu Lys Leu Gln
      50           55           60
Met Thr Ser Ser Glu Arg Arg Lys Ile Met Cys Ser Val Thr Phe His
      65           70           75           80
Val Ile Ala Ile Thr Cys Val Val Trp Ser Leu Tyr Val Leu Ile Asp
      85           90           95
Arg Pro Ala Glu Ile Lys Gln Gly Gln Ala Thr Gly Ile Leu Glu
      100          105          110
Trp Pro Phe Trp Thr Lys Leu Val Val Val Ala Ile Gly Phe Thr Arg
      115          120          125
Gly Leu Leu Phe Met Tyr Val Gln Cys Lys Val Tyr Val Gln Leu Trp
      130          135          140
Lys Arg Leu Lys Ala Tyr Asn Arg Val Ile Tyr Val Gln Asn Cys Pro
      145          150          155          160
Glu Thr Ser Lys Lys Asn Ile Phe Glu Lys Ser Pro Leu Thr Glu Pro
      165          170          175
Asn Phe Glu Asn Lys His Gly Tyr Gly Ile Cys His Ser Asp
      180          185          190

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<210> 5313

<211> 322

<212> DNA

<213> Homo sapiens

<400> 5313

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120
gtgcgcctcg ctctgctctg ctccgagaag cccacgcaca gcctgctgcy gaggatcgcc
180
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gaggtgttca gtgacctggc cctggacact cctgctaaca ggacacacac atactctctt
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322

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<210> 5314

<211> 107

<212> PRT

<213> Homo sapiens

<400> 5314

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Arg Gly Arg Arg Glu Glu Gly Asp Lys Arg Ser Val Ala Pro Gln
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Thr Arg Val Leu Lys Gly Val Met Arg Val Gly Ile Leu Ala Lys Gly
      20           25           30
Leu Leu Leu Arg Gly Asp Arg Asn Val Arg Leu Ala Leu Leu Cys Ser

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35					40					45					
Glu	Lys	Pro	Thr	His	Ser	Leu	Leu	Arg	Arg	Ile	Ala	Gln	Gln	Leu	Pro
50					55					60					
Arg	Gln	His	Arg	Gln	Phe	His	Val	Val	Cys	Asp	Trp	Pro	Val	His	Met
65					70					75					
Glu	Val	Phe	Ser	Asp	Leu	Ala	Leu	Asp	Thr	Pro	Ala	Asn	Arg	Thr	His
85					90					95					
Thr	Tyr	Ser	Leu	Thr	His	Ile	His	Val	His	Thr					
100					105										

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<210> 5315
<211> 2298
<212> DNA
<213> Homo sapiens
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<400> 5315
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120
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180
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420
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 1380
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<210> 5316

<211> 544

<212> PRT

<213> Homo sapiens

<400> 5316

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Gln	Lys	Leu	Asn	Cys	Arg	Gln	Ile	Pro	Lys	Leu	Leu	Arg	Gln	Leu	Gln
		20						25					30		
Glu	Phe	Thr	Asp	Leu	Gly	His	Arg	Leu	Asp	Cys	Leu	Asp	Leu	Lys	Gly
		35				40						45			
Glu	Lys	Leu	Asp	Tyr	Lys	Thr	Cys	Glu	Ala	Leu	Glu	Glu	Val	Phe	Lys

50	55	60
Arg Leu Gln Phe Lys Val Val Asp Leu Glu Gln Thr Asn Leu Asp Glu		
65	70	75
Asp Gly Ala Ser Ala Leu Phe Asp Met Ile Glu Tyr Tyr Glu Ser Ala		80
	85	90
Thr His Leu Asn Ile Ser Phe Asn Lys His Ile Gly Thr Arg Gly Trp		95
	100	105
Gln Ala Ala Ala His Met Met Arg Lys Thr Ser Cys Leu Gln Tyr Leu		110
	115	120
Asp Ala Arg Asn Thr Pro Leu Leu Asp His Ser Ala Pro Phe Val Ala		125
	130	135
Arg Ala Leu Arg Ile Arg Ser Ser Leu Ala Val Leu His Leu Glu Asn		140
145	150	155
Ala Ser Leu Ser Gly Arg Pro Leu Met Leu Leu Ala Thr Ala Leu Lys		160
	165	170
Met Asn Met Asn Leu Arg Glu Leu Tyr Leu Ala Asp Asn Lys Leu Asn		175
	180	185
Gly Leu Gln Asp Ser Ala Gln Leu Gly Asn Leu Leu Lys Phe Asn Cys		190
	195	200
Ser Leu Gln Ile Leu Asp Leu Arg Asn Asn His Val Leu Asp Ser Gly		205
	210	215
Leu Ala Tyr Ile Cys Glu Gly Leu Lys Glu Gln Arg Lys Gly Leu Val		220
225	230	235
Thr Leu Val Leu Trp Asn Asn Gln Leu Thr His Thr Gly Met Ala Phe		240
	245	250
Leu Gly Met Thr Leu Ser His Thr Gln Ser Leu Glu Thr Leu Asn Leu		255
	260	265
Gly His Asn Pro Ile Gly Asn Glu Gly Val Arg His Leu Lys Asn Gly		270
	275	280
Leu Ile Ser Asn Arg Ser Val Leu Arg Leu Gly Leu Ala Ser Thr Lys		285
	290	295
Leu Thr Cys Glu Gly Ala Val Ala Val Ala Glu Phe Ile Ala Glu Ser		300
305	310	315
Pro Arg Leu Leu Arg Leu Asp Leu Arg Glu Asn Glu Ile Lys Thr Gly		320
	325	330
Gly Leu Met Ala Leu Ser Leu Ala Leu Lys Val Asn His Ser Leu Leu		335
	340	345
Arg Leu Asp Leu Asp Arg Glu Pro Lys Lys Glu Ala Val Lys Ser Phe		350
	355	360
Ile Glu Thr Gln Lys Ala Leu Leu Ala Glu Ile Gln Asn Gly Cys Lys		365
	370	375
Arg Asn Leu Val Leu Ala Arg Glu Arg Glu Glu Lys Glu Gln Pro Pro		380
385	390	395
Gln Leu Ser Ala Ser Met Pro Glu Thr Thr Ala Thr Glu Pro Gln Pro		400
	405	410
Asp Asp Glu Pro Ala Ala Gly Val Gln Asn Gly Ala Pro Ser Pro Ala		415
	420	425
Pro Ser Pro Asp Ser Asp Ser Asp Ser Asp Ser Asp Gly Glu Glu Glu		430
	435	440
Glu Glu Glu Glu Gly Glu Arg Asp Glu Thr Pro Ser Gly Ala Ile Asp		445
	450	455
Thr Arg Asp Thr Gly Ser Ser Glu Pro Gln Pro Pro Pro Glu Pro Pro		460
465	470	475
Arg Ser Gly Pro Pro Leu Pro Asn Gly Leu Lys Pro Glu Phe Ala Leu		480

					485					490					495	
Ala	Leu	Pro	Pro	Glu	Pro	Pro	Pro	Gly	Pro	Glu	Val	Lys	Gly	Gly	Ser	
			500					505					510			
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<400> 5322

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Glu	Lys	Ile	Lys	Gln	Ala	Lys	Glu	Ala	Val	Lys	Glu	Asn	Leu	Lys	Lys
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Phe	Ser	Asp	Ser	Val	Lys	Ser	Thr	Phe	Arg	His	Phe	Lys	Asp	Thr	Thr
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Glu	Ala	Ala	Glu	Lys	Pro	Arg	Thr	Val	Phe	Ser	Asp	Tyr	Leu	His	Pro

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 <211> 475
 <212> DNA
 <213> Homo sapiens

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<210> 5324
 <211> 105
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gly Arg Arg Pro Tyr Lys Trp Arg Gly Val Gly Arg Lys Ala Trp Gln
 50 55 60
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<210> 5325
 <211> 938
 <212> DNA
 <213> Homo sapiens

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 35 40 45
 Gly Ser Ala Gly Cys Val Leu Ala Gly Arg Leu Thr Glu Asp Pro Ala
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 Glu Arg Val Leu Leu Leu Glu Ala Gly Pro Lys Asp Val Arg Ala Gly
 65 70 75 80
 Ser Lys Arg Leu Ser Trp Lys Ile His Met Pro Ala Ala Leu Val Ala
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 Asn Leu Cys Asp Asp Arg Tyr Asn Trp Cys Tyr His Thr Glu Val Gln

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      130      135      140
Glu Asp Tyr Glu Arg Trp Gln Arg Gln Gly Ala Arg Gly Trp Asp Tyr
      145      150      155      160
Ala His Cys Leu Pro Tyr Phe Arg Lys Ala Gln Gly His Xaa Ala Gly
      165      170      175
Arg Gln Pro Val Pro Gly Arg Asp Gly Pro Leu Arg Val Ser Arg Gly
      180      185      190
Lys Thr Asn His Pro Leu His Cys Ala Phe Leu Glu Ala Thr Gln Gln
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Phe Gly Trp Met Asp Met Thr Ile His Glu
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<210> 5327

<211> 2084

<212> DNA

<213> Homo sapiens

<400> 5327

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900

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<211> 694

<212> PRT

<213> Homo sapiens

<400> 5328

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Phe	Ser	Ile	Pro	Gly	Ser	Arg	Thr	Ala	Asp	Met	Ala	Glu	Val	Glu	Thr		
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Thr	Thr	Asn	Val	Gly	Val	Pro	Gly	Arg	Trp	Ala	Phe	Arg	Ile	Asp	Asp		
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Ala	Gln	Val	Arg	Val	Gly	Gly	Cys	Gly	His	Thr	Thr	Ser	Val	Cys	Leu		
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Ala	Leu	Arg	Pro	Cys	Leu	Asn	Gly	Gly	Lys	Cys	Ile	Asp	Asp	Cys	Val		
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Ser	Ala	Val	Cys	Val	Cys	Gln	Ala	Gly	Tyr	Thr	Gly	Ala	Ala	Cys	Glu		
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Met	Asp	Val	Asp	Asp	Cys	Ser	Pro	Asp	Pro	Cys	Leu	Asn	Gly	Gly	Ser		
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Lys	Gly	Leu	Arg	Cys	Glu	Thr	Gly	Asp	His	Pro	Val	Pro	His	Ala	Cys		
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Leu	Ser	Ala	Pro	Cys	His	Asn	Gly	Gly	Thr	Cys	Val	Asp	Ala	Asp	Gln		
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Gly	Tyr	Val	Cys	Glu	Cys	Pro	Glu	Gly	Phe	Met	Gly	Leu	Asp	Cys	Arg		
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Glu	Arg	Val	Xaa	Pro	Met	Thr	Val	Ser	Ala	Ala	Thr	Glu	Ala	Asp	Ala		
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Trp	Ala	Pro	Thr	Pro	Pro	Ser	Ala	His	Al								

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 Gly Gly Thr Cys Lys Glu Ala Gly Gly Glu Tyr His Cys Ser Cys Pro
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 Tyr Arg Phe Thr Gly Arg His Cys Glu Ile Gly Lys Pro Asp Ser Cys
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 Ala Ser Gly Pro Cys His Asn Gly Gly Thr Cys Phe His Tyr Ile Gly
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 Ile Ala Pro Ser Pro Cys Phe Arg Ser Pro Cys Val Asn Gly Gly Thr
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 Cys Glu Asp Arg Asp Thr Asp Phe Phe Cys His Cys Gln Ala Gly Tyr
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<210> 5329
 <211> 2582
 <212> DNA
 <213> Homo sapiens

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<210> 5330

<211> 308

<212> PRT

<213> Homo sapiens

<400> 5330

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 Glu Glu Lys Val Ser Tyr Leu Arg Pro Leu Asp Phe Glu Glu Ala Arg
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 100 105 110
 His Ser Ala Leu Phe Lys Val Leu Ala Phe Phe Glu Thr Asp Met Glu
 115 120 125
 Arg Arg Cys Lys Met His Lys Arg Arg Ile Ala Met Leu Glu Pro Leu
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 145 150 155 160
 Gln Phe Glu Ile Ala His Ala Tyr Tyr Asp Met Met Asp Leu Lys Val
 165 170 175
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 Asp Ser Leu Arg Asp Pro Asn Lys Val Phe Pro Glu His Ile Gly Glu
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 Ala Thr Ser Leu Glu His Tyr Lys Phe Ile Val Asp Tyr Cys Glu Lys

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Glu	Met	Val	Ser	Leu	Leu	Pro	Thr	Lys	Met	Glu	Arg	Phe	Arg	Thr	Lys
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<210> 5331

<211> 1069

<212> DNA

<213> Homo sapiens

<400> 5331

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<211> 61

<212> PRT

<213> Homo sapiens

<400> 5332

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<211> 883

<212> DNA

<213> Homo sapiens

<400> 5333

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<212> PRT

<213> Homo sapiens

<400> 5334

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<211> 4282

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 5336

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Cys	Glu	Lys	Leu	Ser	Ala	Lys	Ser	Leu	Gln	Thr	Leu	Arg	Ser	Phe	Ser
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<211> 2742

<212> DNA

<213> Homo sapiens

<400> 5337

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<212> PRT

<213> Homo sapiens

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His	Trp	Val	Pro	Val	Ser	Phe	Asn	Pro	Ser	Asp	Lys	Glu	Ile	Met	Thr
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Phe	Gln	Leu	Lys	Thr	Leu	Leu	Lys	Val	Gln	Val					
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<210> 5339

<211> 847

<212> DNA

<213> Homo sapiens

<400> 5339

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 120
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 180
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 240
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 300
 ggggatgaat acaatcagga ctttgattca accaattttg aggaatctca ggatgaggat
 360

gatgctctta atgaaattgt gcgatgtatt tgtgagatgg atgaggagaa tggcttcatg
 420
 atccagtgtg aagagtgtct gtgttggaac cacagcgtgt gcatggggct gctggaggag
 480
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 660
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 720
 aagaataaac atcatcctga ccttcattctc tgggcttgtt ccggaagcg aaaagaccaa
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 aaaaaaa
 847

<210> 5340
 <211> 217
 <212> PRT
 <213> Homo sapiens

<400> 5340
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 35 40 45
 Glu Glu Ser Gln Asp Glu Asp Asp Ala Leu Asn Glu Ile Val Arg Cys
 50 55 60
 Ile Cys Glu Met Asp Glu Glu Asn Gly Phe Met Ile Gln Cys Glu Glu
 65 70 75 80
 Cys Leu Cys Trp Gln His Ser Val Cys Met Gly Leu Leu Glu Glu Ser
 85 90 95
 Ile Pro Glu Gln Tyr Ile Cys Tyr Ile Cys Arg Asp Pro Pro Gly Gln
 100 105 110
 Arg Trp Ser Ala Lys Tyr Arg Tyr Asp Lys Glu Trp Leu Asn Asn Gly
 115 120 125
 Arg Met Cys Gly Leu Ser Phe Phe Lys Glu Asn Tyr Ser His Leu Asn
 130 135 140
 Ala Lys Lys Ile Val Ser Thr His His Leu Leu Ala Asp Val Tyr Gly
 145 150 155 160
 Val Thr Glu Val Leu His Gly Leu Gln Leu Lys Ile Gly Ile Leu Lys
 165 170 175
 Asn Lys His His Pro Asp Leu His Leu Trp Ala Cys Ser Gly Lys Arg
 180 185 190
 Lys Asp Gln Asp Gln Ile Ile Ala Gly Val Glu Lys Lys Ile Ala Gln
 195 200 205
 Asp Thr Val Asn Arg Glu Glu Lys Lys
 210 215

<210> 5341
<211> 2455
<212> DNA
<213> Homo sapiens

<400> 5341
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180
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240
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300
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360
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420
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480
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720
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1320
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1380
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1440

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 1920
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 1980
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 2040
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 2160
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 2280
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 2340
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<210> 5342

<211> 690

<212> PRT

<213> Homo sapiens

<400> 5342

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 20 25 30
 Leu Arg Trp Leu Leu Gly Asp Pro Thr Cys Cys Val Leu Leu Gly Leu
 35 40 45
 Ala Met Leu Ala Arg Pro Trp Leu Gly Pro Trp Val Pro His Gly Leu
 50 55 60
 Ser Leu Ala Ala Ala Ala Leu Ala Leu Thr Leu Leu Pro Ala Arg Leu
 65 70 75 80
 Pro Pro Gly Leu Arg Trp Leu Pro Ala Asp Val Ile Phe Leu Ala Lys
 85 90 95
 Ile Leu His Leu Gly Leu Lys Ile Arg Gly Cys Leu Ser Arg Gln Pro

100										105					110					
Pro	Asp	Thr	Phe	Val	Asp	Ala	Phe	Glu	Arg	Arg	Ala	Arg	Ala	Gln	Pro					
115										120					125					
Gly	Arg	Ala	Leu	Leu	Val	Trp	Thr	Gly	Pro	Gly	Ala	Gly	Ser	Val	Thr					
130										135					140					
Phe	Gly	Glu	Leu	Asp	Ala	Arg	Ala	Cys	Gln	Ala	Ala	Trp	Ala	Leu	Lys					
145	150										155					160				
Ala	Glu	Leu	Gly	Asp	Pro	Ala	Ser	Leu	Cys	Ala	Gly	Glu	Pro	Thr	Ala					
165										170					175					
Leu	Leu	Val	Leu	Ala	Ser	Gln	Ala	Val	Pro	Ala	Leu	Cys	Met	Trp	Leu					
180										185					190					
Gly	Leu	Ala	Lys	Leu	Gly	Cys	Pro	Thr	Ala	Trp	Ile	Asn	Pro	His	Gly					
195										200					205					
Arg	Gly	Met	Pro	Leu	Ala	His	Ser	Val	Leu	Ser	Ser	Gly	Ala	Arg	Val					
210										215					220					
Leu	Val	Val	Asp	Pro	Asp	Leu	Arg	Glu	Ser	Leu	Glu	Glu	Ile	Leu	Pro					
225	230										235					240				
Lys	Leu	Gln	Ala	Glu	Asn	Ile	Arg	Cys	Phe	Tyr	Leu	Ser	His	Thr	Ser					
245										250					255					
Pro	Thr	Pro	Gly	Val	Gly	Ala	Leu	Gly	Ala	Ala	Leu	Asp	Ala	Ala	Pro					
260										265					270					
Ser	His	Pro	Val	Pro	Ala	Asp	Leu	Arg	Ala	Gly	Ile	Thr	Trp	Arg	Ser					
275										280					285					
Pro	Ala	Leu	Phe	Ile	Tyr	Thr	Ser	Gly	Thr	Thr	Gly	Leu	Pro	Lys	Pro					
290										295					300					
Ala	Ile	Leu	Thr	His	Glu	Arg	Val	Leu	Gln	Met	Ser	Lys	Met	Leu	Ser					
305	310										315					320				
Leu	Ser	Gly	Ala	Thr	Ala	Asp	Asp	Val	Val	Tyr	Thr	Val	Leu	Pro	Leu					
325										330					335					
Tyr	His	Val	Met	Gly	Leu	Val	Val	Gly	Ile	Leu	Gly	Cys	Leu	Asp	Leu					
340										345					350					
Gly	Ala	Thr	Cys	Val	Leu	Ala	Pro	Lys	Phe	Ser	Thr	Ser	Cys	Phe	Trp					
355										360					365					
Asp	Asp	Cys	Arg	Gln	His	Gly	Val	Thr	Val	Ile	Leu	Tyr	Val	Gly	Glu					
370										375					380					
Leu	Leu	Arg	Tyr	Leu	Cys	Asn	Ile	Pro	Gln	Gln	Pro	Glu	Asp	Arg	Thr					
385	390										395					400				
His	Thr	Val	Arg	Leu	Ala	Met	Gly	Asn	Gly	Leu	Arg	Ala	Asp	Val	Trp					
405										410					415					
Glu	Thr	Phe	Gln	Gln	Arg	Phe	Gly	Pro	Ile	Arg	Ile	Trp	Glu	Val	Tyr					
420										425					430					
Gly	Ser	Thr	Glu	Gly	Asn	Met	Gly	Leu	Val	Asn	Tyr	Val	Gly	Arg	Cys					
435										440					445					
Gly	Ala	Leu	Gly	Lys	Met	Ser	Cys	Leu	Leu	Arg	Met	Leu	Ser	Pro	Phe					
450										455					460					
Glu	Leu	Val	Gln	Phe	Asp	Met	Glu	Ala	Ala	Glu	Pro	Val	Arg	Asp	Asn					
465	470										475					480				
Gln	Gly	Phe	Cys	Ile	Pro	Val	Gly	Leu	Gly	Glu	Pro	Gly	Leu	Leu	Leu					
485										490					495					
Thr	Lys	Val	Val	Ser	Gln	Gln	Pro	Phe	Val	Gly	Tyr	Arg	Gly	Pro	Arg					
500										505					510					
Glu	Leu	Ser	Glu	Arg	Lys	Leu	Val	Arg	Asn	Val	Arg	Gln	Ser	Gly	Asp					
515										520					525					
Val	Tyr	Tyr	Asn	Thr	Gly	Asp	Val	Leu	Ala	Met	Asp	Arg	Glu	Gly	Phe					

530	535	540
Leu Tyr Phe Arg Asp Arg	Leu Gly Asp Thr Phe Arg Trp Lys Gly Glu	
545	550	555
Asn Val Ser Thr His Glu Val	Glu Gly Val Leu Ser Gln Val Asp Phe	560
565	570	575
Leu Gln Gln Val Asn Val Tyr	Gly Val Cys Val Pro Gly Cys Glu Gly	
580	585	590
Lys Val Gly Met Ala Ala Val	Gln Leu Ala Pro Gly Gln Thr Phe Asp	
595	600	605
Gly Glu Lys Leu Tyr Gln His	Val Arg Ala Trp Leu Pro Ala Tyr Ala	
610	615	620
Thr Pro His Phe Ile Arg Ile	Gln Asp Ala Met Glu Val Thr Ser Thr	
625	630	635
Phe Lys Leu Met Lys Thr Arg	Leu Val Arg Glu Gly Phe Asn Val Gly	640
645	650	655
Ile Val Val Asp Pro Leu Phe	Val Leu Asp Asn Arg Ala Gln Ser Phe	
660	665	670
Arg Pro Leu Thr Ala Glu Met	Tyr Gln Ala Val Cys Glu Gly Thr Trp	
675	680	685
Lys Leu		
690		

<210> 5343
 <211> 752
 <212> DNA
 <213> Homo sapiens

<400> 5343
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 120
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 180
 gggaaatcaac ccactgtcct ggagacggcg gaagcattcc acccagggaa gaacaaatgg
 240
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 300
 tgcctcctcg ctgtgggagg tgtcaaccag ggtctgagt acgcagtgga ggcctgtgt
 360
 gtctctgact cctagctgtc tctgggctca gtacctttgc cctggaccat atcacttcac
 420
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 480
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 540
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 752

<210> 5344
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 5344
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 Glu Arg Ser Phe Phe Leu Lys Lys Arg Arg Ala Asp Phe Val Ala Gly
 35 40 45
 Ser Leu Ser Gly Arg Val Ile Val Ala Gly Gly Leu Gly Asn Gln Pro
 50 55 60
 Thr Val Leu Glu Thr Ala Glu Ala Phe His Pro Gly Lys Asn Lys Trp
 65 70 75 80
 Glu Ile Leu Pro Ala Met Pro Thr Pro Arg Cys Ala Cys Ser Ser Ile
 85 90 95
 Val Val Lys Asn Cys Leu Leu Ala Val Gly Gly Val Asn Gln Gly Leu
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<210> 5345
 <211> 1912
 <212> DNA
 <213> Homo sapiens

<400> 5345
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 660
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 720

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 780
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 960
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 1800
 gagatctgat cttcaagcaa gaaaataagc agtgtgttac ttgtgaattt tgtgatattt
 1860
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 1912

<210> 5346

<211> 534

<212> PRT

<213> Homo sapiens

<400> 5346

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 Ser Val Lys Ala Leu Leu Leu Lys Gly Lys Ala Pro Val Asp Pro Glu
 35 40 45
 Cys Thr Ala Lys Val Gly Lys Ala His Val Tyr Cys Glu Gly Asn Asp

50		55		60
Val Tyr Asp Val Met Leu Asn Gln Thr Asn Leu Gln Phe Asn Asn Asn				
65		70		75
Lys Tyr Tyr Leu Ile Gln Leu Leu Glu Asp Asp Ala Gln Arg Asn Phe				80
	85		90	95
Ser Val Trp Met Arg Trp Gly Arg Val Gly Lys Met Gly Gln His Ser				
	100		105	110
Leu Val Ala Cys Ser Gly Asn Leu Asn Lys Ala Lys Glu Ile Phe Gln				
	115		120	125
Lys Lys Phe Leu Asp Lys Thr Lys Asn Asn Trp Glu Asp Arg Glu Lys				
	130		135	140
Phe Glu Lys Val Pro Gly Lys Tyr Asp Met Leu Gln Met Asp Tyr Ala				
145		150		155
Thr Asn Thr Gln Asp Glu Glu Glu Thr Lys Lys Glu Glu Ser Leu Lys				160
	165		170	175
Ser Pro Leu Lys Pro Glu Ser Gln Leu Asp Leu Arg Val Gln Glu Leu				
	180		185	190
Ile Lys Leu Ile Cys Asn Val Gln Ala Met Glu Glu Met Met Met Glu				
	195		200	205
Met Lys Tyr Asn Thr Lys Lys Ala Pro Leu Gly Lys Leu Thr Val Ala				
	210		215	220
Gln Ile Lys Ala Gly Tyr Gln Ser Leu Lys Lys Ile Glu Asp Cys Ile				
225		230		235
Arg Ala Gly Gln His Gly Arg Ala Leu Met Glu Ala Cys Asn Glu Phe				
	245		250	255
Tyr Thr Arg Ile Pro His Asp Phe Gly Leu Arg Thr Pro Pro Leu Ile				
	260		265	270
Arg Thr Gln Lys Glu Leu Ser Glu Lys Ile Gln Leu Leu Glu Ala Leu				
	275		280	285
Gly Asp Ile Glu Ile Ala Ile Lys Leu Val Lys Thr Glu Leu Gln Ser				
	290		295	300
Pro Glu His Pro Leu Asp Gln His Tyr Arg Asn Leu His Cys Ala Leu				
305		310		315
Arg Pro Leu Asp His Glu Ser Tyr Glu Phe Lys Val Ile Ser Gln Tyr				
	325		330	335
Leu Gln Ser Thr His Ala Pro Thr His Ser Asp Tyr Thr Met Thr Leu				
	340		345	350
Leu Asp Leu Phe Glu Val Glu Lys Asp Gly Glu Lys Glu Ala Phe Arg				
	355		360	365
Glu Asp Leu His Asn Arg Met Leu Leu Trp His Gly Ser Arg Met Ser				
	370		375	380
Asn Trp Val Gly Ile Leu Ser His Gly Leu Arg Ile Ala Pro Pro Glu				
385		390		395
Ala Pro Ile Thr Gly Tyr Met Phe Gly Lys Gly Ile Tyr Phe Ala Asp				
	405		410	415
Met Ser Ser Lys Ser Ala Asn Tyr Cys Phe Ala Ser Arg Leu Lys Asn				
	420		425	430
Thr Gly Leu Leu Leu Leu Ser Glu Val Ala Leu Gly Gln Cys Asn Glu				
	435		440	445
Leu Leu Glu Ala Asn Pro Lys Ala Glu Gly Leu Leu Gln Gly Lys His				
	450		455	460
Ser Thr Lys Gly Leu Gly Lys Met Ala Pro Ser Ser Ala His Phe Val				
465		470		475
Thr Leu Asn Gly Ser Thr Val Pro Leu Gly Pro Ala Ser Asp Thr Gly				480

	485		490		495										
Ile	Leu	Asn	Pro	Asp	Gly	Tyr	Thr	Leu	Asn	Tyr	Asn	Glu	Tyr	Ile	Val
	500							505				510			
Tyr	Asn	Pro	Asn	Gln	Val	Arg	Met	Arg	Tyr	Leu	Leu	Lys	Val	Gln	Phe
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Asn	Phe	Leu	Gln	Leu	Trp										
	530														

<210> 5347<211> 2893

<212> DNA

<213> Homo sapiens

<400> 5347

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 120
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 180
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 300
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 360
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 420
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 Leu Gly Gly Pro Ala Ser Ser Ala Tyr Ala Leu Ser Pro Phe Ser Ala
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 Ser Gly Gly Trp Gly Arg Ala Gly His Leu His Pro Lys Gly Arg Glu
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 Arg Ser Gly Pro Leu Asp Ala Gly Glu Glu Glu Lys Ala Pro Ala Glu
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 Pro Thr Ala Gln Val Pro Asp Ala Gly Gly Cys Ala Ser Glu Glu Asn
 180 185 190
 Gly Val Leu Arg Glu Lys His Glu Ala Val Asp His Ser Ser Gln His
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 Glu Glu Asn Glu Glu Arg Val Ser Ala Gln Lys Glu Asn Ser Leu Gln
 210 215 220
 Gln Asn Asp Asp Asp Glu Asn Lys Ile Ala Glu Lys Pro Asp Trp Glu
 225 230 235 240
 Ala Glu Lys Thr Thr Glu Ser Arg Asn Glu Arg His Leu Asn Gly Thr
 245 250 255
 Asp Thr Ser Phe Ser Leu Glu Asp Leu Phe Gln Leu Leu Ser Ser Gln
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 Gly Ser Ile Ser Asp Gly Met Asn Ser Ser Ala His Tyr His Val Asn
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Asp Asn Phe Asp Pro Ile Asp Val Ser Gln Leu Phe Asp Glu Ser Asp
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Ser Asp Ser Gly Leu Ser Leu Asp Ser Ser His Asn Asn Thr Ser Val
      420      425      430
Ile Lys Ser Asn Ser Ser His Ser Val Cys Asp Glu Gly Ala Ile Gly
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Tyr Cys Thr Asp His Glu Ser Ser Ser His His Asp Leu Glu Gly Ala
      450      455      460
Val Gly Gly Tyr Tyr Pro Glu Pro Ser Lys Leu Cys His Leu Asp Gln
465      470      475      480
Ser Asp Ser Asp Phe His Gly Asp Leu Thr Phe Gln His Val Phe His
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Asn His Thr Tyr His Leu Gln Pro Thr Ala Pro Glu Ser Thr Ser Glu
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      580      585      590
Gln Asn Cys Arg Lys Arg Lys Leu Asp Ile Ile Leu Asn Leu Glu Asp
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      610      615      620
Ala Gln Cys Asn Lys Ala Ile Asn Ile Met Lys Gln Lys Leu His Asp
625      630      635      640
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Val Asn Pro Asn His Tyr Ala Leu Gln Cys Thr His Asp Gly Ser Ile
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<211> 425

<212> DNA

<213> Homo sapiens

<400> 5349

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 His Lys Val Ser Ser Gln Glu Gly Glu Gly Arg Ile Pro Leu Pro Gly
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 Gly His Glu Gly Leu Gly Arg Leu Leu Trp Gln Ser Gly Pro Leu Gln
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<211> 4217<212> DNA

<213> Homo sapiens

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 195 200 205
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 210 215 220
 Gly Lys Pro Lys Gly Val Val His Thr Val Gly Gly Tyr Met Leu Tyr
 225 230 235 240
 Val Ala Thr Thr Phe Lys Tyr Val Phe Asp Phe His Ala Glu Asp Val
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Met Lys Phe Gly Asp Glu Pro Val Thr Lys His Ser Arg Ala Ser Leu		
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Gln Val Leu Gly Thr Val Gly Glu Pro Ile Asn Pro Glu Ala Trp Leu		
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Tyr Tyr Trp Ile Thr Gly Arg Ile Asp Asp Met Leu Asn Val Ser Gly		
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	500	505
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	515	520
Pro Lys Leu Thr Glu Glu Leu Lys Lys Gln Ile Arg Glu Lys Ile Gly		
	530	535
Pro Ile Ala Thr Pro Asp Tyr Ile Gln Asn Ala Pro Gly Leu Pro Lys		
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Thr Arg Ser Gly Lys Ile Met Arg Arg Val Leu Arg Lys Ile Ala Gln		
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<211> 1596

<212> DNA

<213> Homo sapiens

<400> 5355

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<212> PRT

<213> Homo sapiens

<400> 5356

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Tyr Ser Ser Asn Val Glu Leu Ala Ser Phe His Ser Thr Ser Lys Gly
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Tyr Met Gly Glu Cys Gly Tyr Arg Gly Gly Tyr Met Glu Val Val Asn
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Leu Cys Pro Pro Val Ser Gly Gln Ala Ala Met Asp Ile Val Val Asn
100           105           110
Pro Pro Val Ala Gly Glu Glu Ser Phe Glu Gln Phe Ser Arg Glu Lys
115           120           125
Glu Ser Val Leu Gly Asn Leu Ala Lys Lys Ala Lys Leu Thr Glu Asp
130           135           140
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145           150           155           160
Met Tyr Ala Phe Pro Arg Ile Phe Ile Pro Ala Lys Ala Val Glu Ala
165           170           175
Ala Gln Ala His Gln Met Ala Pro Asp Met Phe Tyr Cys Met Lys Leu
180           185           190
Leu Glu Glu Thr Gly Ile Cys Val Val Pro Gly Ser Gly Phe Gly Gln
195           200           205
Arg Glu Gly Thr Tyr His Phe Arg Met Thr Ile Leu Pro Pro Val Glu
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<400> 5357

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<211> 321

<212> PRT

<213> Homo sapiens

<400> 5358

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Leu Arg Leu Leu Asp Lys Thr Thr Val Ser His Asn Thr Lys Arg Phe
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Arg Phe Ala Leu Pro Thr Ala His His Thr Leu Gly Leu Pro Val Gly
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Lys His Ile Tyr Leu Ser Thr Arg Ile Asp Gly Ser Leu Val Ile Arg
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Pro Tyr Thr Pro Val Thr Ser Asp Glu Asp Gln Gly Tyr Val Asp Leu
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Val Ile Lys Val Tyr Leu Lys Gly Val His Pro Lys Phe Pro Glu Gly
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Gly Lys Met Ser Gln Tyr Leu Asp Ser Leu Lys Val Gly Asp Val Val
      145      150      155      160
Glu Phe Arg Gly Pro Ser Gly Leu Leu Thr Tyr Thr Gly Lys Gly His
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Phe Asn Ile Gln Pro Asn Lys Lys Ser Pro Pro Glu Pro Arg Val Ala
      180      185      190
Lys Lys Leu Gly Met Ile Ala Gly Gly Thr Gly Ile Thr Pro Met Leu
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Gln Leu Ile Arg Ala Ile Leu Lys Val Pro Glu Asp Pro Thr Gln Cys
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Phe Leu Leu Phe Ala Asn Gln Thr Glu Lys Asp Ile Ile Leu Arg Glu
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Asp Leu Glu Glu Leu Gln Ala Arg Tyr Pro Asn Arg Phe Lys Leu Trp
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<212> DNA

<213> Homo sapiens

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<211> 1406
 <212> PRT
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<400> 5360

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 35           40           45
Gly Phe Leu Asp Arg Gln Glu Leu Thr Gln Leu Cys Leu Lys Leu His
 50           55           60
Leu Glu Gln Gln Leu Pro Val Leu Leu Gln Thr Leu Leu Gly Asn Asp
 65           70           75           80
His Phe Ala Arg Val Asn Phe Glu Glu Phe Lys Glu Gly Phe Val Ala
 85           90           95
Val Leu Ser Ser Asn Ala Gly Val Arg Pro Ser Asp Glu Asp Ser Ser
100           105           110
Ser Leu Glu Ser Ala Ala Ser Ser Ala Ile Pro Pro Lys Tyr Val Asn
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Gly Ser Lys Trp Tyr Gly Arg Arg Ser Arg Pro Glu Leu Cys Asp Ala
130           135           140
Ala Thr Glu Ala Arg Arg Val Pro Glu Gln Gln Thr Gln Ala Ser Leu
145           150           155           160
Lys Ser His Leu Trp Arg Ser Ala Ser Leu Glu Ser Val Glu Ser Pro
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Lys Ser Asp Glu Glu Ala Glu Ser Thr Lys Glu Ala Gln Asn Glu Leu
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Phe Glu Ala Gln Gly Gln Leu Gln Thr Trp Asp Ser Glu Asp Phe Gly
195           200           205
Ser Pro Gln Lys Ser Cys Ser Pro Ser Phe Asp Thr Pro Glu Ser Gln
210           215           220
Ile Arg Gly Val Trp Glu Leu Gly Val Gly Ser Ser Gly His Leu
225           230           235           240
Ser Glu Gln Glu Leu Ala Val Val Cys Gln Ser Val Gly Leu Gln Gly
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Leu Glu Lys Glu Glu Leu Glu Asp Leu Phe Asn Lys Leu Asp Gln Asp
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His Glu Pro Ala Leu Leu Leu Glu Ser Ser Thr Arg Val Lys Pro Ser
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Lys Ala Trp Ser His Tyr Gln Val Pro Glu Glu Ser Gly Cys His Thr
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Ser Ser Ile Asp Asp Gly Ser Gly Phe Ala Phe Pro Asp Gln Val Leu
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Ala Met Trp Thr Gln Glu Gly Ile Gln Asn Gly Arg Glu Ile Leu Gln
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          435          440          445
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          450          455          460
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465          470          475          480
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          485          490          495
Glu Trp Asp Val Gly Arg Leu Gln Ala Glu Glu Ala Gly Leu Arg Glu
          500          505          510
Lys Leu Thr Leu Ala Leu Lys Glu Asn Ser Arg Leu Gln Lys Glu Ile
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Ser Trp Ser Arg Gly Thr Gln Glu Gln Ala Ser Glu Gln Gln Ala Arg		
1010	1015	1020
Ala Glu Gly Ala Leu Glu Pro Gly Cys His Lys His Ser Val Glu Val		
1025	1030	1035
Ala Arg Arg Gly Ser Leu Pro Ser His Leu Gln Leu Ala Asp Pro Gln		
1045	1050	1055
Gly Ser Trp Gln Glu Gln Leu Ala Ala Pro Glu Glu Gly Glu Thr Lys		
1060	1065	1070
Ile Ala Leu Glu Arg Glu Lys Asp Asp Met Glu Thr Lys Leu Leu His		
1075	1080	1085
Leu Glu Asp Val Val Arg Ala Leu Glu Lys His Val Asp Leu Arg Glu		
1090	1095	1100
Asn Asp Arg Leu Glu Phe His Arg Leu Ser Glu Glu Asn Thr Leu Leu		
1105	1110	1115
Lys Asn Asp Leu Gly Arg Val Arg Gln Glu Leu Glu Ala Ala Glu Ser		
1125	1130	1135
Thr His Asp Ala Gln Arg Lys Glu Ile Glu Val Leu Lys Lys Asp Lys		
1140	1145	1150
Glu Lys Ala Cys Ser Glu Met Glu Val Leu Asn Arg Gln Asn Gln Asn		
1155	1160	1165
Tyr Lys Asp Gln Leu Ser Gln Leu Asn Val Arg Val Leu Gln Leu Gly		
1170	1175	1180
Gln Glu Ala Ser Thr His Gln Ala Gln Asn Glu Glu His Arg Val Thr		
1185	1190	1195
Ile Gln Met Leu Thr Gln Ser Leu Glu Glu Val Val Arg Ser Gly Gln		
1205	1210	1215
Gln Gln Ser Asp Gln Ile Gln Lys Leu Arg Val Glu Leu Glu Cys Leu		
1220	1225	1230
Asn Gln Glu His Gln Ser Leu Gln Leu Pro Trp Ser Glu Leu Thr Gln		
1235	1240	1245
Thr Leu Glu Glu Ser Gln Asp Gln Val Gln Gly Ala His Leu Arg Leu		

1250	1255	1260
Arg Gln Ala Gln Ala Gln His Leu Gln Glu Val Arg Leu Val Pro Gln		
1265	1270	1275
Asp Arg Val Ala Glu Leu His Arg Leu Leu Ser Leu Gln Gly Glu Gln		1280
	1285	1290
Ala Arg Arg Arg Leu Asp Ala Gln Arg Glu Glu His Glu Lys Gln Leu		1295
	1300	1305
Lys Ala Thr Glu Glu Arg Val Glu Glu Ala Glu Met Ile Leu Lys Asn		1310
	1315	1320
Met Glu Met Leu Leu Gln Glu Lys Val Asp Lys Leu Lys Glu Gln Phe		1325
	1330	1335
Glu Lys Asn Thr Lys Ser Asp Leu Leu Leu Lys Glu Leu Tyr Val Glu		1340
1345	1350	1355
Asn Ala His Leu Val Arg Ala Leu Gln Ala Thr Glu Glu Lys Gln Arg		1360
	1365	1370
Gly Ala Glu Lys Gln Ser Arg Leu Leu Glu Glu Lys Val Arg Ala Leu		1375
	1380	1385
Asn Lys Leu Val Ser Arg Ile Ala Pro Ala Ala Leu Ser Val		1390
	1395	1400
		1405

<210> 5361
 <211> 1080
 <212> DNA
 <213> Homo sapiens

<400> 5361
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 120
 gggcttctctg ggcctccggc agatggagga tggcattaaa tgccaacaca gtcagcttac
 180
 catccacaag gccagcagct gccaacagct gccctagacc tatcaacaag acaacttcat
 240
 ggctcccaat gggaatggag gctgggccc cctacttag agcaggggaa agaacttttc
 300
 cctcaaagag ccggggcagg atgccagaat ctaactacat cctctcccgg ttgagcttc
 360
 taggaagtgg aatttgctgc cctaggcgtg gtctaaagga caagtttaga aatgattcaa
 420
 ctcaagttcc taaacagagt aagtgccagt tgatgtccca ccgtggatcc ttactccag
 480
 aaaaattgta atgatggctc ggccaccgcc ttggctagag tcccactgca cgcgtgtcgt
 540
 gagggccgat gggcaagtcc gtccggtttt tttgttgtt gttgttgtt tttgagatgg
 600
 agtctcgccc tgnttgccc gactgaagtg caaaggccc atctcaactc actgcaacct
 660
 ccgcctctctg ggttcaaagg attctctgt ctcagcctcc tgagtagctg ggattacagg
 720
 caccgcccag caccgccagc tttttttgt attttagta gagacggggt tttatcatgt
 780
 tggccaggct ggtctegaac gctgacctc atgnnatcca cccgccttgg cctcccaaat
 840

tgctgggacc acaggcgtga gccaccgcgc ccggccgtct gtctgggttt caaaccaatc
 900
 aatgaacccg taagcctctt tggatatat aacaatgaaa aaattcatta agccatgaaa
 960
 tctagaaata agtcatatct ctgagttgat aaaatgcttt tctgaacata catttttaggt
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<210> 5362

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5362

Cys	Pro	Thr	Val	Asp	Pro	Leu	Leu	Gln	Lys	Asn	Cys	Asn	Asp	Gly	Ser
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Ala	Thr	Ala	Leu	Ala	Arg	Val	Pro	Leu	His	Ala	Cys	Arg	Glu	Gly	Arg
			20					25					30		
Trp	Ala	Ser	Pro	Ser	Gly	Phe	Phe	Cys	Cys	Cys	Cys	Cys	Phe	Leu	Arg
		35				40						45			
Trp	Ser	Leu	Ala	Leu	Xaa	Ala	Gln	Thr	Glu	Val	Gln	Arg	Pro	Asp	Leu
	50				55						60				
Asn	Ser	Leu	Gln	Pro	Pro	Pro	Gly	Phe	Lys	Gly	Phe	Ser	Cys	Leu	
65				70				75					80		
Ser	Leu	Leu	Ser	Ser	Trp	Asp	Tyr	Arg	His	Pro	Pro	Ala	Arg	Pro	Ala
			85					90					95		
Phe	Phe	Cys	Ile	Phe	Ser	Arg	Asp	Gly	Val	Leu	Ser	Cys	Trp	Pro	Gly
			100				105						110		
Trp	Ser	Arg	Thr	Pro	Asp	Leu	Met	Xaa	Ser	Thr	Arg	Leu	Gly	Leu	Pro
	115					120						125			
Asn	Cys	Trp	Asp	His	Arg	Arg	Glu	Pro	Pro	Arg	Pro	Ala	Val	Cys	Leu
	130					135						140			
Val	Phe	Lys	Pro	Ile	Asn	Glu	Pro	Val	Ser	Leu	Phe	Gly	Ile	Tyr	Asn
145					150					155					160
Asn	Glu	Lys	Ile	His											
				165											

<210> 5363

<211> 894

<212> DNA

<213> Homo sapiens

<400> 5363

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 120
 cggcgttgca ccggctctgt gagcacctcc cctctgagca ctcccttgt gacaggccac
 180
 ttcccttgtg acaggccag gacgaggtgg ccaggcgccc cccatggcgt ccctgggtcta
 240
 ggcggagaac cgctggggcg atgagtgaga acctcgacaa cgagggcccg aagcccatgg
 300

agagctgtgg ccaggagagc agcagtgcc tgagctgccc taccgtctcg gtgccccctg
 360
 cagccccggc agccctggag gaggtggaga aagagggcgc tggggcggt acagggcncg
 420
 gggcctcagc cggggtcta cagctacatc agggatgact tgtttacctc tgagatcttt
 480
 aaactggagc tgcagaacgc gcctcgccac gccagcttca gcgacgtccg gcgcttcctg
 540
 ggccgctttg gtctgcagcc ccacaaaacc aaactctttg ggcaaccacc ctgcgccttt
 600
 gtgacattcc gcagcgctgc agagagggac aaggccctgc gcgttttgca tggtgccctc
 660
 tggaaaggcc gcccactcag tgtggcctgg cccggcccaa ggccgacccc atggccagga
 720
 ggagggcngac aggaggggtga gagtgaacca ccagtaacac gangtggccg acgtggtgac
 780
 ccctctatgg acagtgcct antgctgagc agcttgagcg gaagcagctg gagtgcgagc
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 894

<210> 5364
 <211> 187
 <212> PRT
 <213> Homo sapiens

<400> 5364
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 Arg Trp Arg Lys Arg Ala Leu Gly Arg Leu Gln Gly Xaa Gly Pro Gln
 20 25 30
 Pro Gly Leu Tyr Ser Tyr Ile Arg Asp Asp Leu Phe Thr Ser Glu Ile
 35 40 45
 Phe Lys Leu Glu Leu Gln Asn Ala Pro Arg His Ala Ser Phe Ser Asp
 50 55 60
 Val Arg Arg Phe Leu Gly Arg Phe Gly Leu Gln Pro His Lys Thr Lys
 65 70 75 80
 Leu Phe Gly Gln Pro Pro Cys Ala Phe Val Thr Phe Arg Ser Ala Ala
 85 90 95
 Glu Arg Asp Lys Ala Leu Arg Val Leu His Gly Ala Leu Trp Lys Gly
 100 105 110
 Arg Pro Leu Ser Val Ala Trp Pro Gly Pro Arg Pro Thr Pro Trp Pro
 115 120 125
 Gly Gly Gly Xaa Gln Glu Gly Glu Ser Glu Pro Pro Val Thr Arg Xaa
 130 135 140
 Gly Arg Arg Gly Asp Pro Ser Met Asp Ser Ala Leu Xaa Leu Ser Ser
 145 150 155 160
 Leu Ser Gly Ser Ser Trp Ser Ala Ser Arg Cys Cys Arg Asn Xaa Ala
 165 170 175
 Gln Glu Ile Gly Ser Thr Asn Arg Ala Leu Arg
 180 185

<210> 5365
 <211> 1824

<212> DNA

<213> Homo sapiens

<400> 5365

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120
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180
gacctgtga tgaccacctg tggccacaac ttctgccgag cctgcatcca gctgagctgg
240
gaaaaggcga ggggcaagaa ggggaggcgg aagcggaagg gctccttccc ctgccccgag
300
tgcagagaga tgtccccgca gaggaacctg ctgcccaacc ggctgctgac caagggtggc
360
gagatggcgc agcagcatcc tggctctgcag aagcaagacc tgtgccagga gcaccacgag
420
ccctcaagc ttttctgcca gaaggaccag agccccatct gtgtggtgtg caggagctcc
480
cgggagcacc ggtgcacag ggtgctgccc gccgaggagg cagtgcaggg gtacaagttg
540
aagctggagg aggacatgga gtaccttcgg gagcagatca ccaggacagg gaatctgcag
600
ggcaggagg agcagagctt agccgagtgg cagggcaagg tgaaggagcg gagagaacgc
660
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720
caggctctgg agacggaaga agaggagact gccagcaggc tccgggagag cgtggcctgc
780
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840
caggggcccc tccagatgct gcaggacatg aaggaacccc tgagcaggaa gaacaacgtg
900
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1020
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1080
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1140
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1260
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1320
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1380
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1440
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1500

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 1560
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 1620
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 1680
 aatataattg tgattagaac tgtcaaacat taagagggtg tactgacaga tgcttcctag
 1740
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 1800
 accaaaaaaa aaaaaaagtc gagc
 1824

<210> 5366

<211> 477

<212> PRT

<213> Homo sapiens

<400> 5366

Met	Glu	Ala	Val	Glu	Leu	Ala	Arg	Lys	Leu	Gln	Glu	Glu	Ala	Thr	Cys
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Ser	Ile	Cys	Leu	Asp	Tyr	Phe	Thr	Asp	Pro	Val	Met	Thr	Thr	Cys	Gly
			20					25					30		
His	Asn	Phe	Cys	Arg	Ala	Cys	Ile	Gln	Leu	Ser	Trp	Glu	Lys	Ala	Arg
			35					40					45		
Gly	Lys	Lys	Gly	Arg	Arg	Lys	Arg	Lys	Gly	Ser	Phe	Pro	Cys	Pro	Glu
			50					55					60		
Cys	Arg	Glu	Met	Ser	Pro	Gln	Arg	Asn	Leu	Leu	Pro	Asn	Arg	Leu	Leu
			65					70					75		80
Thr	Lys	Val	Ala	Glu	Met	Ala	Gln	Gln	His	Pro	Gly	Leu	Gln	Lys	Gln
				85						90				95	
Asp	Leu	Cys	Gln	Glu	His	His	Glu	Pro	Leu	Lys	Leu	Phe	Cys	Gln	Lys
				100						105				110	
Asp	Gln	Ser	Pro	Ile	Cys	Val	Val	Cys	Arg	Glu	Ser	Arg	Glu	His	Arg
				115						120				125	
Leu	His	Arg	Val	Leu	Pro	Ala	Glu	Glu	Ala	Val	Gln	Gly	Tyr	Lys	Leu
				130									140		
Lys	Leu	Glu	Glu	Asp	Met	Glu	Tyr	Leu	Arg	Glu	Gln	Ile	Thr	Arg	Thr
					150								155		160
Gly	Asn	Leu	Gln	Ala	Arg	Glu	Glu	Gln	Ser	Leu	Ala	Glu	Trp	Gln	Gly
				165						170					175
Lys	Val	Lys	Glu	Arg	Arg	Glu	Arg	Ile	Val	Leu	Glu	Phe	Glu	Lys	Met
				180						185				190	
Asn	Leu	Tyr	Leu	Val	Glu	Glu	Glu	Gln	Arg	Leu	Leu	Gln	Ala	Leu	Glu
				195						200				205	
Thr	Glu	Glu	Glu	Glu	Thr	Ala	Ser	Arg	Leu	Arg	Glu	Ser	Val	Ala	Cys
				210						215				220	
Leu	Asp	Arg	Gln	Gly	His	Ser	Leu	Glu	Leu	Leu	Leu	Gln	Leu	Glu	
					230					235				240	
Glu	Arg	Ser	Thr	Gln	Gly	Pro	Leu	Gln	Met	Leu	Gln	Asp	Met	Lys	Glu
					245					250				255	
Pro	Leu	Ser	Arg	Lys	Asn	Asn	Val	Ser	Val	Gln	Cys	Pro	Glu	Val	Ala
				260						265				270	
Pro	Pro	Thr	Arg	Pro	Arg	Thr	Val	Cys	Arg	Val	Pro	Gly	Gln	Ile	Glu

275 280 285
 Val Leu Arg Gly Phe Leu Glu Asp Val Val Pro Asp Ala Thr Ser Ala
 290 295 300
 Tyr Pro Tyr Leu Leu Leu Tyr Glu Ser Arg Gln Arg Arg Tyr Leu Gly
 305 310 315 320
 Ser Ser Pro Glu Gly Ser Gly Phe Cys Ser Lys Asp Arg Phe Val Ala
 325 330 335
 Tyr Pro Cys Ala Val Gly Gln Thr Ala Phe Ser Ser Gly Arg His Tyr
 340 345 350
 Trp Glu Val Gly Met Asn Ile Thr Gly Asp Ala Leu Trp Ala Leu Gly
 355 360 365
 Val Cys Arg Asp Asn Val Ser Arg Lys Asp Arg Val Leu Lys Cys Pro
 370 375 380
 Glu Asn Gly Phe Trp Val Val Gln Leu Ser Lys Gly Thr Lys Tyr Leu
 385 390 395 400
 Ser Thr Phe Ser Ala Leu Thr Pro Val Met Leu Met Glu Pro Pro Ser
 405 410 415
 His Met Gly Ile Phe Leu Asp Phe Glu Ala Gly Glu Val Ser Phe Tyr
 420 425 430
 Ser Val Ser Asp Gly Ser His Leu His Thr Tyr Ser Gln Ala Thr Phe
 435 440 445
 Pro Gly Pro Leu Gln Pro Phe Phe Cys Leu Gly Ala Pro Lys Ser Gly
 450 455 460
 Gln Met Val Ile Ser Thr Val Thr Met Trp Val Lys Gly
 465 470 475

<210> 5367

<211> 549

<212> DNA

<213> Homo sapiens

<400> 5367

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 120
 gagtctcagg ggctggggat gctgcccccg aagcccccta cttttgggga gttcctgtcc
 180
 cagcacaag ctgaggccag cagccgcaga aggagaaaga gcagtcggcc ccaggccaag
 240
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 300
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 360
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 420
 aatgaggggg aagaggatga agaatgggag gacataagtg aggatgagga agaggaggag
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 540
 gccccacc
 549

<210> 5368

<211> 137
 <212> PRT
 <213> Homo sapiens

<400> 5368
 Met Leu Pro Pro Lys Pro Pro Thr Phe Gly Glu Phe Leu Ser Gln His
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 Lys Ala Glu Ala Ser Ser Arg Arg Arg Lys Ser Ser Arg Pro Gln
 20 25 30
 Ala Lys Ala Ala Pro Arg Ala Tyr Ser Asp His Asp Asp Arg Trp Glu
 35 40 45
 Thr Lys Glu Gly Ala Ala Ser Pro Ala Pro Glu Thr Pro Gln Pro Thr
 50 55 60
 Ser Pro Glu Thr Ser Pro Lys Glu Thr Pro Met Gln Pro Pro Glu Ile
 65 70 75 80
 Pro Ala Pro Ala His Arg Pro Pro Glu Asp Glu Gly Glu Glu Asn Glu
 85 90 95
 Gly Glu Glu Asp Glu Glu Trp Glu Asp Ile Ser Glu Asp Glu Glu Glu
 100 105 110
 Glu Glu Ile Glu Val Glu Glu Gly Asp Glu Glu Glu Pro Ala Gln Asp
 115 120 125
 His Gln Ala Pro Glu Ala Ala Pro Thr
 130 135

<210> 5369
 <211> 646
 <212> DNA
 <213> Homo sapiens

<400> 5369
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 120
 cagcagcagc agctcctgca gccgcggccc tcgcccgtgg gcagcagcgg gcccgagccc
 180
 cccggggggc agcccgcgcg catgaaggac ctggacgcca tcaaactctt cgtggggccag
 240
 atcccgcgcg acctggacga gaaggacctc aagccgctct tcgagcagtt cggccgcctc
 300
 tacgagctca cgggtgctcaa agaccctac acgggggatgc acaaagggtg gcgcccggcc
 360
 cctccccccc tctccccctc cctccgcctc ccacccacac ttccggcctc ttctctcccc
 420
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 480
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 646

<210> 5370

<211> 148
 <212> PRT
 <213> Homo sapiens

<400> 5370
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 His Leu Asp Glu Lys Asp Leu Lys Pro Leu Phe Glu Gln Phe Gly Arg
 20 25 30
 Ile Tyr Glu Leu Thr Val Leu Lys Asp Pro Tyr Thr Gly Met His Lys
 35 40 45
 Gly Gly Arg Pro Ala Pro Ser Pro Leu Ser Pro Ser Leu Arg Leu Pro
 50 55 60
 Pro His Leu Pro Ala Ser Ser Leu Pro His His His Pro Ser Ser Ala
 65 70 75 80
 His Leu Pro Pro Leu Pro Ala Ser Ala Gly Ala Ser Val Leu Thr Pro
 85 90 95
 Ser Leu Pro Pro Thr Pro Pro Pro Leu Ser Gly Gly Ala Ala Asp Arg
 100 105 110
 Ser Glu Arg Ala Pro Ser Pro Pro Pro Pro Leu Pro Pro Ser Pro
 115 120 125
 Pro Ser Gly Ile Ser Ser Leu Ser Pro Ser Leu Ser Pro Ser Leu Ser
 130 135 140
 Pro Phe Leu Phe
 145

<210> 5371
 <211> 1177
 <212> DNA
 <213> Homo sapiens

<400> 5371
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 120
 tccacgccgt ccaactgtcct cagcgaccag gccaaagtatc taaaccctt actgggagag
 180
 tggaagcact tcaactgcctc cctggccccc cgcattgtcca accagggcat cgcggtgctc
 240
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 300
 cgatgctgga ggtatgaccc acggcacaac cgctggnttc cagatccagt ccctgcagca
 360
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 420
 cgtgactacc acaatgacct gaatgctgtg gagcgctacg accctgccac caactcctgg
 480
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 540
 aagatgtata tcacctgcgg ccgcagaggg gaggattacc tgaaagagac aactgctac
 600
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 660

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 720
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 780
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 900
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 960
 gcggcctgtg tgctcaccct gccccgctcc ctgctccttg agccgccccg cgggaccctc
 1020
 gaccgcagcc aggcggaccc ggactttgcc tctgaggatga tgagtgtgtc tgactgggag
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 1177

<210> 5372

<211> 368

<212> PRT

<213> Homo sapiens

<400> 5372

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Pro	Ser	Leu	Gln	Ser	Pro	Gln	Thr	Glu	Leu	Arg	Ser	Asp	Phe	Gln	Cys
		20						25					30		
Val	Val	Gly	Phe	Gly	Gly	Ile	His	Ser	Thr	Pro	Ser	Thr	Val	Leu	Ser
		35				40						45			
Asp	Gln	Ala	Lys	Tyr	Leu	Asn	Pro	Leu	Leu	Gly	Glu	Trp	Lys	His	Phe
		50				55					60				
Thr	Ala	Ser	Leu	Ala	Pro	Arg	Met	Ser	Asn	Gln	Gly	Ile	Ala	Val	Leu
65					70					75				80	
Asn	Asn	Phe	Val	Tyr	Leu	Ile	Gly	Gly	Asp	Asn	Asn	Val	Gln	Gly	Phe
			85					90						95	
Arg	Ala	Glu	Ser	Arg	Cys	Trp	Arg	Tyr	Asp	Pro	Arg	His	Asn	Arg	Trp
			100					105					110		
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<211> 4221

<212> DNA

<213> Homo sapiens

<400> 5373

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<210> 5374
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 <213> Homo sapiens

<400> 5374
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 35 40 45
 Asp Asp Ser Glu Val Pro Ser Ser Ser Gly Ile Asn Ser Thr Lys Ser
 50 55 60
 Gln Asp Lys Asp Val Asn Glu Gly Glu Thr Ser Asp Gly Val Arg Lys
 65 70 75 80
 Ser Val His Lys Val Phe Ala Ser Met Leu Gly Glu Asn Glu Asp Asp
 85 90 95
 Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Thr
 100 105 110
 Pro Glu Gln Pro Thr Ala Gly Asp Val Phe Val Leu Glu Met Val Leu
 115 120 125
 Asn Arg Glu Thr Lys Lys Met Met Lys Glu Lys Arg Pro Arg Ser Lys
 130 135 140
 Leu Pro Arg Ala Leu Arg Gly Leu Met Gly Glu Ala Asn Ile Arg Phe
 145 150 155 160
 Ala Arg Gly Glu Arg Glu Glu Ala Ile Leu Met Cys Met Glu Ile Ile
 165 170 175
 Arg Gln Ala Pro Leu Ala Tyr Glu Pro Phe Ser Thr Leu Ala Met Ile
 180 185 190
 Tyr Glu Asp Gln Gly Asp Met Glu Lys Ser Leu Gln Phe Glu Leu Ile
 195 200 205
 Ala Ala His Leu Asn Pro Ser Asp Thr Glu Glu Trp Val Arg Leu Ala
 210 215 220
 Glu Met Ser Leu Glu Gln Asp Asn Ile Lys Gln Ala Ile Phe Cys Tyr
 225 230 235 240
 Thr Lys Ala Leu Lys Tyr Glu Pro Thr Asn Val Arg Tyr Leu Trp Glu
 245 250 255
 Arg Ser Ser Leu Tyr Glu Gln Met Gly Asp His Lys Met Ala Met Asp
 260 265 270
 Gly Tyr Arg Arg Ile Leu Asn Leu Leu Ser Pro Ser Asp Gly Glu Arg
 275 280 285
 Phe Met Gln Leu Ala Arg Asp Met Ala Lys Ser Tyr Tyr Glu Ala Asn
 290 295 300
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 305 310 315 320
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 325 330 335
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 355 360 365
 Glu Asn Lys Ala Pro Glu Asn Val Thr Cys Thr Ile Pro Asp Gly Val
 370 375 380
 Pro Ile Asp Ile Thr Val Lys Leu Met Val Cys Leu Val His Leu Asn
 385 390 395 400
 Ile Leu Glu Pro Leu Asn Pro Leu Leu Thr Thr Leu Val Glu Gln Asn
 405 410 415
 Pro Glu Asp Met Gly Asp Leu Tyr Leu Asp Val Ala Glu Ala Phe Leu
 420 425 430
 Asp Val Gly Glu Tyr Asn Ser Ala Leu Pro Leu Leu Ser Ala Leu Val
 435 440 445
 Cys Ser Glu Arg Tyr Asn Leu Ala Val Val Trp Leu Arg His Ala Glu
 450 455 460
 Cys Leu Lys Ala Leu Gly Tyr Met Glu Arg Ala Ala Glu Ser Tyr Gly
 465 470 475 480
 Lys Val Val Asp Leu Ala Pro Leu His Leu Asp Ala Arg Ile Ser Leu
 485 490 495
 Ser Thr Leu Gln Gln Leu Gly Gln Pro Glu Lys Ala Leu Glu Ala
 500 505 510
 Leu Glu Pro Met Tyr Asp Pro Asp Thr Leu Ala Gln Asp Ala Asn Ala
 515 520 525
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 530 535 540
 Ser Gln Gly Lys Met Tyr Gly Tyr Val Asp Thr Leu Leu Thr Met Leu
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 580 585 590
 Arg Asp Lys Ile Ser Asp Ser Asn Asp Gln Glu Ser Ala Asn Cys Asp
 595 600 605
 Ala Lys Ala Ile Phe Ala Val Leu Thr Ser Val Leu Thr Lys Asp Asp
 610 615 620
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 625 630 635 640
 Arg Phe Gln Glu Ala Glu Leu Leu Val Asp Ser Ser Leu Glu Tyr Tyr
 645 650 655
 Ser Phe Tyr Asp Asp Arg Gln Lys Arg Lys Glu Leu Glu Tyr Phe Gly
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 675 680 685
 Ile Arg Ile Met Val Met Glu Asn Val Asn Lys Pro Gln Leu Trp Asn
 690 695 700
 Ile Phe Asn Gln Val Thr Met His Ser Gln Asp Val Arg His His Arg
 705 710 715 720
 Phe Cys Leu Arg Leu Met Leu Lys Asn Pro Glu Asn His Ala Leu Cys
 725 730 735
 Val Leu Asn Gly His Asn Ala Phe Val Ser Gly Ser Phe Lys His Ala
 740 745 750
 Leu Gly Gln Tyr Val Gln Ala Phe Arg Thr His Pro Asp Glu Pro Leu
 755 760 765
 Tyr Ser Phe Cys Ile Gly Leu Thr Phe Ile His Met Ala Ser Gln Lys

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Tyr Val Leu Arg Arg His Ala Leu Ile Val Gln Gly Phe Ser Phe Leu
785              790              795              800
Asn Arg Tyr Leu Ser Leu Arg Gly Pro Cys Gln Glu Ser Phe Tyr Asn
      805              810              815
Leu Gly Arg Gly Leu His Gln Leu Gly Leu Ile His Leu Ala Ile His
      820              825              830
Tyr Tyr Gln Lys Ala Leu Glu Leu Pro Pro Leu Val Val Glu Gly Ile
      835              840              845
Glu Leu Asp Gln Leu Asp Leu Arg Arg Asp Ile Ala Tyr Asn Leu Ser
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Leu Ile Tyr Gln Ser Ser Gly Asn Thr Gly Met Ala Gln Thr Leu Leu
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<210> 5375
 <211> 526
 <212> DNA
 <213> Homo sapiens

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420
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526

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<210> 5376
 <211> 112
 <212> PRT
 <213> Homo sapiens

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<400> 5376
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      20      25      30
Leu Gln Arg Ala Ala Ala Ser Ser Glu Ser Pro Val Ala Arg Thr Trp
      35      40      45
Val Gln Leu Lys Ser Ile Ser Leu Phe Ala Phe Ser Glu Ala Ser Pro

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Ser Ser Leu Leu Lys Lys Asn Thr Cys Arg Cys His Leu Pro Arg Ile				
65		70		75
Cys His Arg Pro Arg Thr Ile Ser Ile Phe Asn Pro Arg Asn His Thr				80
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<210> 5377

<211> 1452

<212> DNA

<213> Homo sapiens

<400> 5377

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<210> 5378

<211> 374

<212> PRT

<213> Homo sapiens

<400> 5378

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		195					200					205			
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Leu	Ile	Asp	Ser	Val	Asp	Pro	His	Gly	Phe	Ile	Ser	Tyr	Arg	Leu	Phe
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Arg	Asp	Ala	Thr	Arg	Tyr	Met	Asp	Gly	His	His	Val	Lys	Asp	Ile	Ser
				245					250					255	
Cys	Leu	Asn	Arg	Asp	Pro	Ala	Arg	Val	Val	Val	Val	Asp	Cys	Lys	Lys
		260						265					270		
Glu	Ala	Phe	Arg	Leu	Gln	Pro	Tyr	Asn	Gly	Val	Ala	Leu	Arg	Pro	Trp
	275						280					285			
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Ser Arg Leu Glu Gln Glu Glu Gln Gln Arg Leu Ala Glu Leu Ser Lys
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<210> 5379

<211> 3213

<212> DNA

<213> Homo sapiens

<400> 5379

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<211> 903

<212> PRT

<213> Homo sapiens

<400> 5380

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Ser	Cys	Ala	Pro	Ala	Leu	Leu	Gly	Ser	Gly	Cys	Gly	Ser	Gly	Glu	Ser
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Cys	Asp	Arg	Gly	Cys	Leu	Ala	Ala	Ile	Leu	Ala	Ser	Thr	Ser	Ala	Thr
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Gln	Ala	Arg	Met	Val	Leu	Arg	Cys	Cys	Ser	Glu	Phe	Ile	Glu	Ala	His
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Gly	Val	Val	Asp	Gly	Ile	Tyr	Arg	Leu	Ser	Gly	Val	Ser	Ser	Asn	Ile
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Leu	Tyr	Phe	Arg	Glu	Leu	Pro	Asn	Pro	Leu	Leu	Thr	Tyr	Gln	Leu	Tyr
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Gly	Lys	Phe	Ser	Glu	Ala	Met	Ser	Val	Pro	Gly	Glu	Glu	Glu	Arg	Leu
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Thr	Leu	Glu	Tyr	Leu	Leu	Arg	His	Leu	Ala	Arg	Met	Ala	Arg	His	Ser
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Arg Thr Gln Gly Arg Leu Gly Thr Pro Thr Glu Pro Thr Thr Pro Lys
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Ala Pro Ala Ser Pro Ala Glu Arg Arg Lys Gly Glu Arg Gly Glu Lys
305          310          315          320
Gln Arg Lys Pro Gly Gly Ser Ser Trp Lys Thr Phe Phe Ala Leu Gly
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Arg Gly Pro Ser Val Pro Arg Lys Lys Pro Leu Pro Trp Leu Gly Gly
          340          345          350
Thr Arg Ala Pro Pro Gln Pro Ser Ala Trp Leu Asp Asp Gly Asp Glu
          355          360          365
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Phe Asp Pro Leu Thr Phe Arg Cys Ser Ser Pro Thr Pro Gly Asp Pro
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Pro Arg Val Thr Pro Gln Ala Ile Ser Pro Arg Gly Pro Thr Ser Pro
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Cys Gln Gln Glu Met Cys Ser Lys Leu Arg Gly Ala Gln Gly Pro Leu
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Glu Gln Gln Ser Gln Gln Glu Cys Gly Gly Thr Pro Pro Ala Ser Gln
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Gly Thr Ser Gly Ser Gly Pro Pro Pro Asn Ser Leu Ala His Pro Gly
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Ala Trp Val Pro Gly Pro Pro Pro Tyr Leu Pro Arg Gln Gln Ser Asp
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 Ser Pro Phe Arg Ser Met Pro Pro Asp Arg Leu Asn Ala Ser Tyr Gly
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 Met Leu Gly Gln Ser Pro Pro Leu His Arg Ser Pro Asp Phe Leu Leu
 740 745 750
 Ser Tyr Pro Pro Ala Pro Ser Cys Phe Pro Pro Asp His Leu Gly Tyr
 755 760 765
 Ser Ala Pro Gln His Pro Ala Arg Arg Pro Thr Pro Pro Glu Pro Leu
 770 775 780
 Tyr Val Asn Leu Ala Leu Gly Pro Arg Gly Pro Ser Pro Ala Ser Ser
 785 790 795 800
 Ser Ser Ser Ser Pro Pro Ala His Pro Arg Ser Arg Ser Asp Pro Gly
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 Pro Pro Val Pro Arg Leu Pro Gln Lys Gln Arg Ala Pro Trp Gly Pro
 820 825 830
 Arg Thr Pro His Arg Val Pro Gly Pro Trp Gly Pro Pro Glu Pro Leu
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 850 855 860
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 <212> DNA
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<211> 223

<212> PRT

<213> Homo sapiens

<400> 5382

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 Gln Arg Phe Val Asp Ala Tyr Phe Lys Ala Tyr Pro Gly Tyr Tyr Phe
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 Thr Gly Asp Gly Ala Tyr Arg Thr Glu Gly Gly Tyr Tyr Gln Ile Thr

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Ala Val Ile Gly Tyr Pro His Asp Ile Lys Gly Glu Ala Ala Phe Ala
          115          120          125
Phe Ile Val Val Lys Asp Ser Ala Gly Asp Ser Asp Val Val Val Gln
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Glu Leu Lys Ser Met Val Ala Thr Lys Ile Ala Lys Tyr Ala Val Pro
145          150          155          160
Asp Glu Ile Leu Val Val Lys Arg Leu Pro Lys Thr Arg Ser Gly Lys
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Val Met Arg Arg Leu Leu Arg Lys Ile Ile Thr Ser Glu Ala Gln Glu
          180          185          190
Leu Gly Asp Thr Thr Thr Leu Glu Asp Pro Ser Ile Ile Ala Glu Ile
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<210> 5383

<211> 2027

<212> DNA

<213> Homo sapiens

<400> 5383

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<210> 5384

<211> 508

<212> PRT

<213> Homo sapiens

<400> 5384

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Thr Asn Val Trp Ile Asn Val His Asp Ile Phe Tyr Pro Phe Pro Gln		80
	85	90
Ser Glu Gly Glu Asp Glu Leu Cys Phe Leu Arg Ala Asn Glu Cys Lys		95
	100	105
Thr Gly Phe Cys His Leu Tyr Lys Val Thr Ala Val Leu Lys Ser Gln		110
	115	120
Gly Tyr Asp Trp Ser Glu Pro Phe Ser Pro Gly Glu Gly Glu Gln Ser		125
	130	135
Leu Thr Asn Ala Ile Trp Val Asn Glu Glu Thr Lys Leu Val Tyr Phe		140
145	150	155
Gln Gly Thr Lys Asp Thr Pro Leu Glu His His Leu Tyr Val Val Ser		160
	165	170
Tyr Glu Ala Ala Gly Glu Ile Val Arg Leu Thr Thr Pro Gly Phe Ser		175
	180	185
His Ser Cys Ser Met Ser Gln Asn Phe Asp Met Phe Val Ser His Tyr		190
	195	200
Ser Ser Val Ser Thr Pro Pro Cys Val His Val Tyr Lys Leu Ser Gly		205
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Pro Asp Asp Asp Pro Leu His Lys Gln Pro Arg Phe Trp Ala Ser Met		220
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Met Glu Ala Ala Lys Ile Phe His Phe His Thr Arg Ser Asp Val Arg		240
	245	250
Leu Tyr Gly Met Ile Tyr Lys Pro His Ala Leu Gln Pro Gly Lys Lys		255
	260	265
His Pro Thr Val Leu Phe Val Tyr Gly Gly Pro Gln Val Gln Leu Val		270
	275	280
Asn Asn Ser Phe Lys Gly Ile Lys Tyr Leu Arg Leu Asn Thr Leu Ala		285
290	295	300
Ser Leu Gly Tyr Ala Val Val Val Ile Asp Gly Arg Gly Ser Cys Gln		305
	310	315
Arg Gly Leu Arg Phe Glu Gly Ala Leu Lys Asn Gln Met Gly Gln Val		320
	325	330
Glu Ile Glu Asp Gln Val Glu Gly Leu Gln Phe Val Ala Glu Lys Tyr		335
	340	345
Gly Phe Ile Asp Leu Ser Arg Val Ala Ile His Gly Trp Ser Tyr Gly		350
	355	360
Gly Phe Leu Ser Leu Met Gly Leu Ile His Lys Pro Gln Val Phe Lys		365
	370	375
Val Ala Ile Ala Gly Ala Pro Val Thr Val Trp Met Ala Tyr Asp Thr		380
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Gly Tyr Thr Glu Arg Tyr Met Asp Val Pro Glu Asn Asn Gln His Gly		400
	405	410
Tyr Glu Ala Gly Ser Val Ala Leu His Val Glu Lys Leu Pro Asn Glu		415
	420	425
Pro Asn Arg Leu Leu Ile Leu His Gly Phe Leu Asp Glu Asn Val His		430
	435	440
Phe Phe His Thr Asn Phe Leu Val Ser Gln Leu Ile Arg Ala Gly Lys		445
	450	455
Pro Tyr Gln Leu Gln Val Ala Leu Pro Pro Val Ser Pro Gln Ile Tyr		460
465	470	475
Pro Asn Glu Arg His Ser Ile Arg Cys Pro Glu Ser Gly Glu His Tyr		480